

HINDU MEDICINE.

1. *Commentary on the Hindu System of Medicine*, by T. A. Wise, M.D. 8vo. Calcutta, 1845.
2. *An Essay on the Antiquity of Hindu Medicine*, by J. Forbes Royle, M. D. F. R. and L. S. &c. &c. &c. 8vo. London, 1837.
3. *Tracts, Historical and Statistical on India*, by Benjamin Heyne, M. D., F. L. S. &c. &c. &c. 4to. London, 1814.
4. *A view of the History, Literature, and Mythology of the Hindus, including a Minute description of their Manners and Customs, and translations from their principal works*, by William Ward, of Serampore. 8vo. London, 1822.
5. *Materia Indica; or some account of those articles which are employed by the Hindus, and other eastern nations, in their Medicine, Arts, and Agriculture, &c.*, by Whitelaw Ainslie, M. D. M. R. A. S. 2 vols. 8vo. London, 1826.
6. *Asiatic Researches; or Transactions of the Society instituted in Bengal, for enquiring into the History, the Antiquities, the Arts and Sciences and Literature of Asia*. 18 vols. 4to. Calcutta. The articles relating to Hindu Medicine.
7. *Transactions of the Medical and Physical Society of Calcutta*. 8 vols. 8vo. Calcutta. Ditto.
8. *The History of India*, by the Hon'ble Mountstuart Elphinstone, 2 vols. 8vo. London, 1841. Vol. 1, Chapter IV. On Hindu Medicine.
9. *The History of British India*, by James Mill, Esq., edited with notes and continuation by H. H. Wilson, Esq., M. A., F. R. S. 8vo. London. Book II, Cap. 10, Vol. 2d.
10. *Essai d'une Histoire Pragmatique de la Medecine*, par Kurt Sprengel, traduit sur la deuxieme edition par C. F. Geiger. 2 vols. 8vo. Paris 1809. Section III. Vol. 1, Médecine Indienne.
11. *The History of Medicine, Surgery, and Anatomy, from the creation of the world to the commencement of the 19th Century*, by W. Hamilton, M. B. 2 vols. 12mo. London, 1831. Cap. 1. vol. 1. History of Medicine from the time of Adam to the birth of Hippocrates.

THERE are few, if any, countries in which the public generally take so great an interest in purely professional matters,

as that manifested by European sojourners in India. The reason of this is obvious. The community generally is an educated one, and many of its members from the vicissitudes incidental to an Indian life, whether in its civil, military, or planting capacities, are so often exposed to the influence of disease, to accidents from flood and field, and to various mishaps and mischances, far removed from medical aid and attendance, as to render a little knowledge of medicine and surgery not only a valuable but a tolerably general acquisition. Few Sportsmen and Indigo Planters are without their medical reminiscences, sometimes of a ludicrous, but far more frequently of a sad and melancholy character; and the time is not far removed when the military and medical charge of small detachments devolved upon the gallant Subaltern in command, aided by a compounder picked up for the nonce, and as ignorant of the rudiments as was the renowned Japhet himself, when first placed under the charge of the sagacious Cophagus, and in the companionship of the facetious Timothy.

The first contact with disease in a tropical form is well calculated to startle the novice. Its deadly grasp and giant strides—the ruddy health of the morning followed by the pallor and collapse of the evening—the rapid death of the victim of cholera, fever, and the other plagues and pestilences of the jungle and the marsh, enforce an attention not easily called into existence in the more favored regions of the fair earth.

An acute observer has remarked, that “every one desires to live as long as he can. Every one values health ‘above all gold and treasure.’ Every one knows that as far as his own individual good is concerned, protracted life and a frame of body sound and strong, free from the thousand pains which flesh is heir to, are unspeakably more important than all other [earthly] objects, because life and health must be secured before any possible result of any possible circumstance can be of consequence to him.

Possessed then of this knowledge, and knowing the class of readers we are about to address, as well as being anxious that all departments of literature and science which appertain to the gorgeous East, should find a fitting place in the *Calcutta Review*, need we apologize for introducing to their notice and consideration the subject of “Hindu Medicine.”

The first question that demands attention in an examination of Hindu Medicine is its claim to a high degree of antiquity, for upon this must rest its chief recommendations to pre-eminence over other systems which have obtained celebrity, and led to the present advanced state of the art and science of medicine in modern Europe.

It would be difficult, if not impossible to decide with certainty the exact age in which the various Hindu medical treatises were produced, and with every respect for the profound attainments and acute reasoning of the eminent oriental scholars, who have at various times attempted to unravel this tangled thread of mystery, we cannot regard the conclusions at which they have arrived in any other light than that of probable conjecture.

Dr. Wise has treated this portion of his subject with much candour and acumen in the introductory remarks prefixed to his Commentary, and appears carefully to have consulted all accessible authorities regarding it.

It is now generally admitted that the three first Yugs or ages of Hindu Chronology are purely fanciful and fabulous, and that the present degenerate age or Kali-yug is the only one concerning which any really trustworthy information has been, or can be afforded. The Hindus themselves pretend, that this era began 3101 B. C. or 756 before the Deluge; and from the manner in which their calculations were conducted, as well as the basis upon which they rested, the proofs of the antiquity both of the nation and of its system of Astronomy were for some time supposed to be complete and perfect. It was adopted by the celebrated Bailly in his elegant history of Astronomy, accepted by the scientific circles of Paris at that time, and advocated in England by Playfair, Robertson, and other eminent authorities; but subsequent investigation has demonstrated, "that the series of Astronomical phenomena which Bailly regarded as affording decisive evidence of the extreme antiquity of the Hindu nation, in reality established the very reverse, for they have been shown not to have been taken from actual observation, but framed from calculating *backwards* on tables constructed during a period consistent with authentic history, and to contain, in consequence, several errors which the more accurate researches of later times have proved, are inconsistent with what must have occurred." *

Bentley has shown, in his paper on the "Hindu systems of Astronomy, and their connections with History in ancient and modern times,†" that there is no reason for believing the Kali-yug to have commenced at an earlier period than 1004 B. C. or rather more than two centuries and a half subsequent to the occurrence of the Argonautic expedition, and the conjectured existence of Æsculapius. This would render the existence of Hindu records, if we suppose them to have been produced during the

* Alison.

+ Asiatic Researches, vol. viii.

present age, more recent by six centuries and a half, than the first mention of Medicine and its followers in the Mosaic writings.

Without, however, adopting the views of Bentley * as strictly correct, notwithstanding their general truthfulness having been endorsed by Laplace and Delambre, or coinciding to the full extent in his remark that no dependence is to be placed on Hindu opinions, "since when thoroughly sifted and examined, they are principally founded in vanity, ignorance, and credulity,"—there can be no valid reason advanced or solid proof adduced, to shew that the medicine of the Hindus is more ancient than that of the Egyptians and Hebrews—although it appears subsequently to have attained more of the dignity of a science, and to have been cultivated with a greater degree of assiduity and success.

* "The name of Mr Bentley will descend with great distinction to posterity for his intelligent criticism on the antiquity of the Brahmanical books and their astronomical computations. It was a bold undertaking to be the first to break the spell of credulity which was lulling Europe into such an unphilosophical lethargy, but he will soon find himself rewarded by his success. We are satisfied that the venerated books of the Brahmins need only to be translated, in order to enable every man who can read, to discover their imposture; but till these translations appear, the researches of Mr. Bentley and those of our Sanskrit students, who follow his foot-steps, will be wanted to undeceive such as have been hitherto deluded. Lieutenant Wilford, who is familiar with the Puranas, and has personally experienced the frauds of the modern Brahmins, has so far advanced in the progress to true criticism and common sense, as to tell us that with regard to history the Hindus really have nothing but romances. He says their works, whether historical or geographical, are most extravagant compositions, in which little regard indeed is paid to truth. In their treatises on geography they seem to view the globe through a prism, as if adorned with the liveliest colours, mountains are of solid gold, bright like ten thousand suns, and others are of precious gems. Some of silver borrow the mild and dewy beams of the moon. There are rivers and seas of liquid amber, clarified butter, milk, curds, and intoxicating liquors. Geographical truth is sacrificed to a symmetrical arrangement of countries, mountains, lakes, and rivers, with which they are highly delighted. There are two geographical systems among the Hindus. The first and most ancient is according to the Puranas, in which the earth is considered as a convex surface gradually sloping towards the borders and surrounded by the ocean. The second and modern system is that adopted by astronomers, and certainly the worst of the two. The Puranics, considering the earth as a flat surface or nearly so, their knowledge does not extend much beyond the old continent or the superior hemisphere; but astronomers being acquainted with the globular shape of the earth, and of course with an inferior hemisphere, were under the necessity of borrowing largely from the superior part, in order to fill up the inferior one. Thus their astronomical knowledge, instead of being of service to geography, has augmented the confusion, distorted and dislocated every part, every country, in the old continent."

"Even Mr. H. Colebrooke, who still looks at these books with an eye of favour, in his last Essay confesses, that the mythology of the orthodox Hindus, their present chronology adapted to astronomical periods, their legendary tales, their mystical allegories, are abundantly extravagant."—*Quarterly Review*, Vol. I, p. p. 66-67.

"We do not believe that even the Vedas are nearly so old as the poems of Homer, and we are satisfied that some of the Puranas are very modern."—*Ibid*, p. 67.

Dr. Muskeleyne adds his testimony to the general correctness of Bentley's views, in the following terms:

"I think Bentley right: he has proved by his calculations that there was no real observation made at the beginning of the Kali yuga. Bailly was a pleasing historical writer, but he had more imagination than judgment; and I know he was condemned by his friends, La Lande and La Place, as a *superficial astronomer*, and a very *indifferent calculator*. These two gentlemen entertained the same opinion with myself with respect to the antiquity of Hindu astronomy, and I think that Mr. Bentley has made out satisfactorily the real antiquity of the *Surya Siddhanta*!"

To the Hindus must undoubtedly be assigned the merit of having been the first to practise dissection of the human body, as we shall have occasion to show hereafter, and to have possessed a complete series of treatises upon the different branches of medicine.

It is difficult to imagine how so learned and laborious a scholar as Sir Wm. Jones could have fallen into so serious an error as to state, that there was no evidence to prove the existence in any language of Asia of any original treatise on medicine considered as science. The ignorance of the Brahmans concerning the Medical Shastras could scarcely have been so great as to render them unacquainted with their existence, although they might not have been conversant with their contents. However much the Mahommedan conquerors may have neglected and despised the medical science of the Hindus, such was not the case with the hereditary physicians of Hindustan, and although *they* may have been unwilling to part with, or make known the contents of their long transmitted and highly prized manuscripts, they would scarcely have denied or concealed the fact of their existence from their own countrymen.

The mistake of Mill is still greater, and cannot be excused, since a little more diligent examination of what was then known, would have dispelled the delusion under which he laboured. Without admitting their exaggerated pretensions to antiquity, or recognizing the absurdities of their fabulous chronology, he ought to have been better acquainted with the state in which the civilization, sciences, and institutions of the Hindus were found by Alexander in his Indian campaigns, as related by Arrian and Plutarch, and with the numerous well authenticated facts scattered through various modern writers, who had partially investigated the subject and published their remarks and observations prior to the appearance of the History of India.

Elphinstone mentions Charaka and Susruta as the earliest medical writers extant, but does not attempt to establish the date of either of them, further than specifying upon the authority of Royle, the commentary written upon the latter in Kashmír in the twelfth or thirteenth century—probably not the first that was called into existence by the text in question. In the preliminary observations prefixed to the second volume of Ainslie's *Materia Indica*, are collected together various arguments derived from different sources concerning the antiquity and nature of the scientific knowledge generally of the Hindus, and particularly of their medicine, but that writer has not succeeded in throwing any light upon the question of their exact age, and indeed acknowledges his inability to do so, while he

inclines to the belief of their being as old as, and not borrowed from, the sciences of the Egyptians. "The Hindu medical treatises, we are told were all written many hundred years ago, but at what exact period it is next to impossible to ascertain, as dates are very rarely affixed to the manuscripts, and whatever questions are put touching particular eras to those Brahmans who might be supposed best able to reply to them, they are unvariably answered in an unsatisfactory manner" * —a result experienced by most others who have pursued the same path of enquiry, with the attempted aid of such inefficient and ignorant guides as the great majority of the present race of Pandits.

By far the most elaborate and successful attempt to establish the antiquity of Hindu Medicine is that of Professor Royle, whose able and argumentative treatise has become the standard of reference of all systematic writers upon the subject. The learned and diligent author of the Botany of the Himalayas appears, during the period of his exile and servitude, to have devoted much of his time to the collection and investigation of various articles of the indigenous Materia Medica found in the bazars of India, and this led him to study and trace their history and properties with such aid as can be obtained in this country alone. Although the author is not a Sanskrit scholar, he certainly appears to us to have established by a train of ingenious and occasionally complete evidence, that the medicine of the Hindus was older than that of the Arabs and of the Greeks, that it was *probably original*, and not borrowed from any other nation; and that it contained much that was interesting and deserving of further research and enquiry.

The following extract from Royle's Essay will give our readers a fair idea of the nature and force of the reasoning brought to bear upon this difficult question :—

"Hindu works on Medicine having been proved to have existed prior to the Arabs, little doubt can be entertained, I conceive, respecting their originality; as we know of no source from which they could have been borrowed, except from the Greeks, and there is little probability of the Hindus having had access to any original or translated works at so early a period, as must have been the case from their containing no traces of the Galenical doctrines so conspicuous in the writings of the Arabs. Some coincidences would appear rather to be that of observers of the same fact, than of borrowers from the same books. The description of some diseases which seem to have been first known in India, as well as the internal administration of metals, they could not have borrowed from the Greeks. That there must have been independent observers in India, at a very early age of the world, we have proofs in the commerce of their manufactures and of their medicines. Many of the latter may be found described in the works of the Greeks, but we see no trace of European medicines in those of the

* Ainslie Op. cit.

Hindus ; and though knowledge may travel from north to south, tropical products can in our hemisphere only travel from south to north. Their employment, therefore, in the latter, proves their previous investigation by a people resident in the countries of their growth. On such grounds, therefore, I conceive, we may infer the antiquity of Hindu medicine ; and while unable to get any positive dates for their works, we may yet, by circumstantial evidence, obtain an approximation which will, I think, prove its independent origin. We may, however, conceive it to be the remains of a still more ancient system, of which we have no records, but of the existence of which there can be no doubt, as Herodotus relates, that in his time, in Egypt, there were distinct physicians for different diseases, which were classed according to their seat in the human body ; and from Diodorus Siculus we learn, that every physician was obliged to follow a written code. Hence it is more than probable that there was early in Egypt a distinct system of medicine, and we have notices also in the works of the ancients of its being a subject much attended to by the Persian magi. Notwithstanding that the Greeks travelled to the East and to Egypt in quest of knowledge, it has been said, that Egyptian medicine consisted chiefly in incantation ; but this explanation is as likely to have been owing to the ignorance of the narrators as of the physicians ; for even in our own day we seldom see even well-informed writers able to explain or to describe correctly facts of a scientific nature. In the same manner, those who were unable to decipher their hieroglyphics, pronounced all the knowledge of the Egyptian priesthood to consist in magic.

The only direct testimony we have with respect to the date of the works of Charaka and of Susruta, is that of Professor Wilson, who states that from their being mentioned in the Puranas, the ninth or tenth century is the most modern limit of our conjecture ; while the style of the authors, as well as their having become the heroes of fable, indicate a long anterior date. The Arabs must have become acquainted with the translations in the eighth, or early in the ninth century, as Harun-al-Rashid and Al-Mamoon succeeded respectively in the years 786 and 813 to the Caliphate, when it stretched to the Indus : the latter survived only twenty years. Geber is supposed to have lived in the seventh or eighth century, and we have shown the probability of his having had access to the chemical knowledge of the Hindus. But for their merits to have been sufficiently established for their works to be translated at the same time with those of the principal Greek authors, these Hindu physicians must certainly have lived and written long before ; to allow their fame to extend into foreign countries, in an age when the communication of literature must have been at least as slow as it now is in the East.*

In addition to proving the priority of the Hindus to the Greeks and Arabs in the matters above mentioned, the Professor has traced in an extended though cursory chain of arguments, the commerce, science, arts, literature, and civilization of the Brahmans from the earliest period of their own authentic records, as well as from the testimony afforded by the literary remains of other nations, and by the application of this combined mass of evidence, has satisfactorily established the fact he intended to prove. In the validity, however, of some of his arguments we are not inclined to coincide, nor we do we think that he has

* Royle's Essay, pp. 62. 3. 4.

always been happy in tracing the identity between Greek and Arabic terms. There is no more fruitful source of error than the ambiguity of nomenclature in ages and among nations which had no fixed standards of comparison, and whose complete ignorance of the essential characters of plants and even of mineral bodies, renders it difficult, if not impossible, to identify the substance described and spoken of. In the writings of so comparatively recent an author as Dioscorides, whose works have been illustrated and annotated by "swarms of commentators," out of seven hundred plants contained in his *Materia Medica*, not more than four hundred have been correctly ascertained: nor have Theophrastus,—the Father of Botany,—Pliny, and even Celsus fared much better. To enter into any detailed analysis of such minor points of objection, or indeed further to prolong our remarks upon this preliminary portion of our enquiry into the Hindu system of medicine, would be out of place in the necessarily narrow limits to which we must confine our article, were we even possessed of the leisure and eastern lore requisite for the prosecution of such a task. We cannot, however, quit a topic of which probably many of our readers are already heartily tired, without a passing reference to the paper of Horace Hayman Wilson, published in the *Oriental Magazine* for 1823, and quoted by Royle in the essay above referred to. Unlike most of the other writers upon this subject, Professor Wilson is universally acknowledged to be one of the most profound and accomplished Sanskrit scholars in existence, and his evidence, delivered with the modesty and caution of one well acquainted with the nature and extent of the materials at his command, is entitled to the highest consideration. We can only venture upon the following extracts from his paper:—

"There is reason to conclude, from the imperfect opportunities of investigation we possess, that in medicine, as in astronomy and metaphysics, the Hindus once kept pace with the most enlightened nations of the world; and that they attained as thorough a proficiency in medicine and surgery, as any people, whose acquisitions are recorded, and as indeed was practicable, before anatomy was made known to us, by the discoveries of modern inquirers.

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The *Ayur Veda*, as the medical writings of highest antiquity and authority are collectively called, is considered to be a portion of the fourth or *Atharva Veda*, and is consequently the work of BRAHMA—by him it was communicated to DASHA, the *Prajapati*, and by him, the two ASWINS, or sons of SURYA, the Sun, were instructed in it, and they then became the medical attendants of the gods—a genealogy, that cannot fail recalling to us the two sons of *Æsculapius*, and their descent from *Apollo*. Now what were the duties of the ASWINS, according to Hindu authorities?—the gods, enjoying eternal youth and health, stood in no need of physicians, and consequently these held no such sinecure station. The wars between the

gods and demons, however, and the conflicts amongst the gods themselves, in which wounds might be suffered, although death was not inflicted, required chirourgical aid—and it was this, accordingly, which the two Aswins rendered. They performed many extraordinary cures, as might have been expected, from their superhuman character.

The meaning of these legendary absurdities is clear enough, and is conformable to the tenor of all history. Man, in the semi-barbarous state, if not more subject to external injuries, than internal disease, was at least more likely to seek remedies for the former, which were obvious to his senses, than to imagine the means of relieving the latter, whose nature he could so little comprehend.

Surgical, therefore, preceded medicinal skill; as Celsus has asserted, when commenting on Homer's account of Podalirius and Machaon, who were not consulted, he says, during the plague in the Grecian Camp, although regularly employed, to extract darts and heal wounds. The same position is maintained, as we shall hereafter see, by the Hindu writers, in plain, as well as in legendary language.

According to some authorities, the ASWINS instructed INDRA, and INDRA was the preceptor of DHANWANTARI; but others make ATREYA, BHARADWAJA, and CHARAKA, prior to the latter. CHARAKA's work, which goes by his name, is extant—DHANWANTARI is also styled KASIRAJA, prince of *Kasi* or Benares. His disciple was SUSRUTA, the son of VISWAMITRA, and consequently a contemporary of RAMA: his work also exists, and is our chief guide at present. It is unquestionably of some antiquity, but it is not easy to form any conjecture of its real date, except that it cannot have the prodigious age, which Hindu fable assigns it—it is sufficient to know, that it is perhaps the oldest work on the subject, excepting that of CHARAKA, which the Hindus possess. One commentary on the text, made by UBHATTA, a Cashmerian, is probably as old as the twelfth or thirteenth century, and his comment, it is believed, was preceded by others. The work is divided into six portions—the *Sutra Sthana*, or CHIRURGICAL DEFINITIONS; the *Nidana Sthana*, or section on SYMPTOMS, or DIAGNOSIS; *Sarira Sthana* ANATOMY; *Chikitsa Sthana*, the internal application of Medicines; *Kulpa Sthana*, ANTIDOTES; *Uttara Sthana*, or a supplementary section on various local diseases or affections of the eye, ear, &c. In all these divisions however, surgery, and not general medicine, is the object of the *Susruta*.

The *Ayur Veda*, which originally consisted of one hundred sections, of a thousand stanzas each, was adapted to the limited faculties and life of man, by its distribution into eight subdivisions, the enumeration of which conveys to us an accurate idea of the objects of the *Ars medendi* amongst the Hindus. The divisions are thus enumerated—1. *Salya*; 2. *Salakya*; 3. *Kaya Chikitsa*; 4. *Bhutavidya*; 5. *Kaumarabhritya*; 6. *Agada*; 7. *Rasayana*; and 8. *Bajikarana*. They are explained as follows:

Salya is the art of extracting extraneous substances, whether of grass wood, earth, metal, bone, &c. violently or accidentally introduced into the human body; with the treatment of the inflammation and suppuration thereby induced; and by analogy, the cure of all phlegmonoid tumours and abscesses. The word *Salya* means a dart or arrow, and points clearly to the origin of this branch of Hindu science. In like manner the *ἰατρὸς*, or physician of the Greeks, was derived according to *Sextus Empiricus* from *ἰος*, an arrow or dart.

2. *Salakya* is the treatment of external organic affections, or diseases of the eyes, ears, nose, &c. it is derived from *Salaka*, which means any thin and sharp instrument; and is either applicable in the same manner as *Salya*, to the active causes of the morbid state, or it is borrowed from the

generic name of the slender probes and needles, used in operations on the parts affected.

3. *Kaya Chikitsa* is, as the name implies, the application of the *Ars Medendi* (*Chikitsa*) to the body in general (*Kaya*), and forms what we mean by the Science of Medicine—the two preceding divisions constitute the Surgery of modern schools.

4. *Bhutaridya* is the restoration of the faculties from a disorganised state, induced by Demoniaca! possession. This art has vanished before the diffusion of knowledge, but it formed a very important branch of medical practice, through all the schools, Greek, Arabic, or European, and descended to days very near our own, as a reference to *Burton's Anatomy of Melancholy* may prove to general readers.

5. *Kaumara bhritya* means, the care of infancy, comprehending not only the management of children from their birth, but the treatment of irregular lactic secretion, and puerperal disorders in mothers and nurses—this holds with us also the place, that its importance claims.

6. *Ayada* is the administration of antidotes—a subject which, as far as it rests upon scientific principles, is blended with our medicine and surgery.

7. *Rasayana* is chemistry, or more correctly alchemy, as the chief end of the chemical combinations it describes, and which are mostly metallurgic, is the discovery of the universal medicine—the elixir, that was to render health permanent, and life perpetual.

8. The last branch, *Bajikarana*, professes to promote the increase of the human race—an illusory research, which, as well as the preceding, is not without its parallel in ancient and modern times.*

Before entering upon the detailed examination of the different departments of Hindu Medicine as developed in Wise's Commentary, it may not be uninteresting to the general reader to give a brief sketch of the Medicine of the Hebrews and of the Egyptians—so as to enable him to institute some degree of comparison between them.

The sacred writings of the Jews, and the existence of authentic historical monuments, prove that Egypt was partially civilized at a period when the rest of the then known world was in a state of complete ignorance and barbarism. The Hindus contest the palm of superior antiquity and civilization with the Egyptians, but upon uncertain and in many respects purely imaginary grounds, while few facts are now more completely established, than the high state of cultivation of the arts and sciences at a very remote period of the existence of ancient Egypt, whereas there are, on the other hand, few things more easy to disprove than the fabulous chronology of the Brahmins. No people could have been more favorably situated for the early cultivation of science than the inhabitants of the fertile banks of the Nile, and none have left more magnificent monuments of their skill, civilization, and the wonderful degree of perfection they attained, when a more than

* The *Oriental Magazine*, vol. i. p. 307—12.

Cimmerian darkness enveloped the rest of the habitable globe, so far as we now are capable of judging.

It would be out of place in any work not specially devoted to the history of Medicine, to attempt to trace its origin, or to speculate upon the nature of the various divinities to whom the ancients ascribed the virtue of healing. Upon these matters we have no more certain or trustworthy guides than fabulous traditions or crude conjectures, based upon an imperfect knowledge of the nature of man in a savage state, and of the particular wants to which he is supposed to be most liable in such a condition. It is in reality of no great consequence in the present advanced stage of the science, to ascertain whether the natural and inherent preservative instinct of man led him to distinguish alimentary from medicinal, and these from poisonous substances, or whether, as an ingenious author has attempted to prove, animals were the earliest physicians: it is sufficient for our purposes to know, that some knowledge of medicine must have been among the earliest of human arts, and most probably long before it attained the dignity of a science. There can be little doubt, also, that in the infancy of the great human family diseases must have been few and simple, and cured more by the *vis medicatrix nature* than by the efficacy of any drugs then known and used. This is abundantly evident and apparent in an examination of the earlier systems of medicine transmitted to us, in all of which diet and regimen, air and exercise, are constantly insisted upon as among the most efficacious means of removing disease and of restoring health. Many of the ancient medical philosophers appear to have been very much of the opinion of the modern poet, that

“ The first physicians by debauch were made,
Excess began, and sloth sustains the trade.
By chase our long-liv'd fathers earn'd their food;
Toil strung the nerves, and purify'd the blood.
But we their sons, a pamper'd race of men,
Are dwindled down to threescore years and ten.
Better to hunt in fields for health unbought,
Than fee the doctor for a nauseous draught.
The wise for cure on exercise depend:
God never made his work for man to mend.”

Among the early Egyptians, as among many more modern nations, the practice of medicine was originally usurped by the Priesthood, who built their temples in healthy positions, and excited the imaginations of their patients by a variety of ceremonies and practices, compotunds of magic and imposture, not altogether unknown in the more systematic and learned empiricism of recent times as exhibited in the wonders of Cagliostro, and the manipulations of sundry pretenders of the present day.

The credit of all cures was assumed for the particular deities presiding over each temple, and the cause of all failures was adroitly ascribed to the anger of some offended divinity, whose wrath was not to be appeased by mortal means: they consequently branded the unfortunate incurables as criminals under punishment for unpardonable sins! Something not far removed from this will be found in the medicine of the Hindus, and is recorded in the earliest writings of the Greek Poets. The classical reader will doubtless remember, that when at the siege of Troy the plague reigned and raged in the Grecian camp, Homer describes its progress, but is silent upon the human efforts made to arrest it and obviate its fatality. In fact his advice is, to let

“ Some prophet or some sacred sage,
Explore the cause of great Apollo's rage;
Or learn the wasteful vengeance to remove,
By mystic dreams; for dreams descend from Jove.
If broken vows this heavy curse have laid,
Let altars smoke, and hecatombs be paid.
So heav'n aton'd, shall dying Greece restore,
And Phœbus dart his burning shafts no more.”

The medical priesthood of Egypt consisted of an exclusive caste of considerable dignity, inasmuch as the rulers of the land were also then selected from the priestly faculty. They were haughty, reserved, austere, and never relaxed the fixed and melancholy appearance of their countenances in the presence of their patients. Their food consisted exclusively of vegetables and the sacrificial meats—the flesh of all other animals being carefully rejected as unwholesome, and as the cause of the forms of leprosy, ophthalmia, and other formidable diseases, which appear, even at that early period, to have been common in the land of the Pharaohs. Whether the drink of these aboriginal sons of Æsculapius was wine or water, has been a subject of much discussion: the balance of evidence is in favour of their having been worshippers of the rosy God.

Herodotus maintains that in his time Egypt was a species of medical paradise, and that every disease had its own special practitioner—a subdivision of duty that must have been marvellously inconvenient for those who laboured under complicated disorders.

The practice of the early physicians would seem to have been simple, the disease being in general left to the curative powers of nature, with the occasional exhibition of some evacuant remedy,—a literal verification of the modern definition of physic as ‘the art of amusing the patient, while nature cures the disease.’

The surgical skill of the Egyptians has been called in ques-

tion in consequence of their having been unable to cure a simple sprain, or to reduce the dislocated ankle of Darius, the son of Hystaspes.

The soothsayers prognosticated the changes and terminations of diseases, the cure of which was generally undertaken by the ordinary priests, and *they* could not treat any acute affection before the fourth day of its manifestation, except upon their personal responsibility.

The two principal departments of medicine in which the claim of early distinction and proficiency has been made for the Egyptians, are Anatomy and Chemistry. Their knowledge of the former was entirely confined to the art of embalming in the various forms in which it was practised, and entitles them to no such credit. In this respect we shall find them infinitely inferior to the Hindus, and their writings contain the grossest anatomical blunders, even more absurd than the Chinese drawings of human dissections, in which the outline is filled up with the internal structures of various animals. Their chemical skill and knowledge were undoubtedly in a much more advanced state, for they have left metallurgic and other results which are still enigmas for the most eminent of our modern chemical philosophers, and are far in advance of anything of the kind ever found in Hindustan.

They practised periodical evacuations; treated rheumatism by friction with crocodile's fat; employed fumigation; were acquainted with the uses of balsam, spices and myrrh; and appear also to have used alum, plasters, and various ointments, in the latter of which white lead and verdigris were occasionally ingredients. The last mentioned fact has been called in question, and is supposed to be true only of the Egyptians at a much later period.

The early medicine of the Hebrews, appears from the incidental remarks contained in the Bible, to have attained a considerable degree of perfection. Their remedial agents were chiefly of a hygienic nature, and consisted of circumcision, strict attention to diet, separation, frequent ablution, and the combustion of infected garments. Every Christian reader must be well acquainted with the minute directions and descriptions contained in the book of Leviticus; the cure of Naaman's leprosy; the odoriferous confections and ointments mentioned in the 30th chapter of Exodus, as compounded "after the art of the apothecary;" the employment of music as a cure for melancholy; the use of antimony as a face paint; and the mention in various places of the Fig, the Olive, Saffron, Myrrh, Bdellium, Galbanum, Cumin, Coriander,

Balm of Gilead, Frankincense, Cassia, Cinnamon, the Pomegranate, Dill, and it is conjectured Colocynth and Castor Oil.

In medicine and natural history the great lawgiver Moses not only surpassed his Egyptian masters, but possessed the secret of reducing gold to powder, as related in the 32nd chapter of Exodus—"And he took the calf which they had made, and burnt it in the fire, and ground it to powder, and strawed it upon the water, and made the children of Israel drink of it." He also sweetened the bitter waters of Marah, and has left a most accurate account of the various forms of leprosy.

The wisdom of Solomon has since become a proverb.

"And God gave Solomon wisdom and understanding exceeding much, and largeness of heart even as the sand that is on the sea shore."

"And Solomon's wisdom exceeded the wisdom of all the children of the East country, and all the wisdom of Egypt."

"For he was wiser than all men," * * * * * and his fame was in all nations round about."

"And he spake three thousand proverbs: and his songs were a thousand and five."

"And he spake of trees, from the cedar tree that is in Lebanon, even unto the hyssop that springeth out of the wall: he spake also of beasts, and of fowl, and of creeping things, and of fishes.*"

Hartwell Horne,† who appears to have consulted and collated almost every existing authority upon the subject, in his section "*On the diseases mentioned in the Scriptures*," has the following passage upon the origin of medicine among the Hebrews, and the nature and duties of their physicians.

"The Jews ascribed the *origin* of the healing art to God himself (Ecclus. xxxviii. 1, 2,) and the Egyptians attributed their invention of it to their God Thaut or Hermes, or to Osiris or Isis.

Antiently at Babylon, the sick, when they were first attacked by a disease, were left in the streets, for the purpose of learning from those who might pass them, what practices or what medicines had been of assistance to them, when afflicted with similar diseases. The Egyptians carried their sick into the temple of Serapis; the Greeks carried theirs into those of Æsculapius. In the temples of both these deities there were preserved written receipts of the means by which various cures had been effected. With the aid of these

* I. Kings, Cap. iv.

A modern writer, however, commenting on this fact, has the following remarks:—"Gold is so ductile that it is very difficult to grind it to powder, and it is still more difficult to dissolve it in water. Here is an exploit which the greatest chemists of the present day could not do more than perform—a sufficient proof of the scientific skill of Moses, and consequently of the Egyptians, from whom he drew his knowledge. But there seems no reason for believing that Moses possessed any chemical knowledge whatever. He broke the calf in pieces, and reduced it to as small fragments as he could; these he threw into water, and made the Israelites drink of that liquid. We are sure that the gold was not dissolved in the water, because gold, in a state of solution, is one of the most virulent of poisons, and could not, therefore, have been administered to the Israelites with impunity."—*Ed. Review*, Vol. L. p. 257.

† Horne's Introduction to the critical study and knowledge of the Holy Scriptures. Vol. iii. chapter ix. § 1. p. 501 to 11.

recorded remedies, the art of healing assumed in the progress of time the aspect of a science. It assumed such a form first in Egypt, and at a much more recent period in Greece; but it was not long before those of the former were surpassed in excellence by the physicians of the latter country. That the Egyptians, however, had no little skill in medicine, may be gathered from what is said in the Pentateuch respecting the marks of leprosy. That some of the medicinal prescriptions should fail of bringing the expected relief is by no means strange, since Pliny himself mentions some which are far from producing the effects he ascribes to them.* Physicians are first mentioned in Gen. i. 2. Exod. xxi. 19. Job xiii. 4. Some acquaintance with chirurgical operations is implied in the rite of circumcision† (Gen. xvii. 11-14.) There is ample evidence that the Israelites had some acquaintance with the internal structure of the human system, although it does not appear that dissections of the human body, for medical purposes, were made till as late as the time of Ptolemy.‡ That physicians sometimes undertook to exercise their skill, in removing diseases of an internal nature is evident from the circumstance of David's playing upon the harp to cure the melancholy of Saul. (1 Sam. xvi. 16.) The art of healing was committed among the Hebrews as well as among the Egyptians, to the priests; who, indeed, were obliged, by a law of the state, to take cognizance of leprosy. (Lev. xiii. 1-14, 57. Deut. xxiv. 8, 9.) Reference is made to physicians who were not priests, and to instances of sickness, disease, healing, &c." in various parts of the scriptures."

The diseases mentioned in the sacred writings § are cancers, consumption, dropsy, fevers, epilepsy, lunacy, leprosy in its

* This is by no means confined to Pliny and the ancients—our modern systems of *Materia Medica* abound and are overloaded with remedies to which supposititious virtues are ascribed, and contain many which are inert and useless, or on the other hand positively mischievous. Few circumstances have operated so prejudicially upon the advance of the therapeutical department of medicine, as the ignorance, carelessness, and we fear, occasionally the culpable and wilful mis-representations which characterize a large proportion of the observations published on the actions and uses of medicinal agents.

† This, however, can only be admitted as evidence of the lowest possible degree of surgical skill. Circumcision and Nymphotomy, an analogous operation, still continues to be practised among the Copts, Egyptians, Arabs, Ethiopians and other eastern nations. They are performed by the most ignorant and lowest order of practitioners, demanding a very moderate amount of knowledge and skill. Buffon, in alluding to the latter operation says—"d'après Niebuhr, cette operation se fait vers l'age de dix ans, sans ceremonie religieuse, et en y attachant si peu d'importance qu'on ne la fait pratiquer que lorsque les femmes qui font ce metier passent accidentellement dans la rue." (Hist. Nat. Tom. iv.) They are on a level in fact with the corn cutters and bone setters of modern Europe.

‡ ANATOMY does not appear to have been cultivated by the Hebrews, among whom the contact with a dead body rendered an individual unclean, even with purification for seven days, as related in the 19th chapter of Numbers from the 11th verse, and also alluded to in the book of Leviticus.

Their knowledge of *PHYSIOLOGY* was exceedingly restricted. They regarded the bones as important organs, and as the seat of severe diseases, and considered the umbilical region and epigastrium as exercising a great degree of influence over the health of the individual. But on these and other ordinary matters connected with the *natural sciences* and arts, the Jews were left very much to their own resources. It never was the design of true *Revelation* to supersede the exercise of the human faculties in any department of knowledge to the cultivation of which these may be fully competent. On the contrary, its general intent has been to brace, invigorate and expand all the powers and susceptibilities of the soul, and to encourage, under due regulation, the application of these to every pursuit calculated to enlarge the boundaries of useful knowledge or confer fresh benefits on the family of man.

§ Horne. loc. cit.

various forms, as contagious or non-contagious—described with a degree of minuteness and accuracy to which it is scarcely possible for a modern observer to make a single addition from external examination alone, as may daily be seen in the streets of this city—elephantiasis with a species of which the patriarch Job is conjectured to have been afflicted; the disease of the Philistines, variously supposed to have been either dysentery, or hæmorrhoids; the disease of Saul, melancholia; the disease of Jehoram, King of Israel, dysentery, with ulceration and discharge of portions of intestine; the disease with which Hezekiah was afflicted, said to have been either a pleurisy, or the plague, elephantiasis, or a quinsey, but conjectured by most to have been fever terminating in abscess; and the hypochondriasis of Nebuchadnezzar.

We do not refer to the diseases, remedies, and other medical matters mentioned in the New Testament, as they are of much more recent date, and can scarcely be taken to have any connection with the *antiquity* of Hebrew Medicine.

Much of the learning of the ancient Israelites was probably derived from the Egyptians, in the frequent intercourse that took place in the time of Abraham and his descendants, as well as during the four centuries of bondage of the successors of Jacob. There is no doubt, however, that much more was peculiar to themselves, and like their faith and customs, handed down from the remotest periods.

The claims of the Chinese will not bear investigation, either as to the extent or antiquity of their knowledge of medicine, when compared with the Hebrews, the Egyptians, or the Hindus.

There can be equally little, or possibly even less, doubt concerning the more modern claims of the Arabs, who have not only been proved to have had access to and quoted from the Charaka and Susruta,—but to have been well acquainted with the writings of the Greek Fathers of Medicine. In fact the doctrines of Hippocrates and Galen were early taught in their schools, and no credit can be assigned to them of having been among the *earliest* cultivators of any of the arts and sciences. They belong altogether to a much more recent era, and were in the first instance chiefly indebted for their knowledge to the Hindus and Greeks.

Although the Greeks cannot pretend to the antiquity in knowledge of the Hindus, the Egyptians, or the Hebrews—“it is neither in Egypt, nor in India, nor in Palestine, nor in Rome, that the first germs of the *systematic* study of science are to be found, but in Greece alone.”

To the Hindus and to the Egyptians the modern world

owes nothing of its advance in science and civilization, but to Greece, the cradle of learning and liberty, the debt of gratitude in every department of literature and art is immense and universally acknowledged. Among them none have derived more positive benefit, or been more firmly impressed with the sterling stamp of wisdom than Medicine and the branches of human knowledge collaterally or immediately connected with it. With the single exception of Chemistry, in which the credit of a high degree of cultivation and success, subsequently reflected in the brilliant researches and discoveries of our own time, belongs undoubtedly to the Arabs, every other branch of European Medicine may be traced to a Grecian origin; and in many of them, the doctrines and practices of the old fathers of physic are still quoted with deference, and acknowledged with respect. The dogmatism of Hippocrates and his successors; the professed empiricism which reigned in the schools from the time of Serapion to the commencement of the Christian *Æra*; the methodism which partially commenced with Themison and continued until the reign of Marcus Aurelius, when it was firmly established by Galen, the physician and peripatetic; and the peripatetic dogmatism that prevailed from his time to the period when that strange compound of mountebank, quack, and philosopher Paracelsus, the cotemporary of Charles the V., appeared upon the stage, all had their influence upon the succeeding revolutions of medicine,—embracing the chemical dogmatism that ceased with the discovery of the circulation, by the immortal Harvey, in the reign of Charles I; the mechanical dogmatism that obtained possession of the schools to the period of Boerhave in the commencement of the 18th century, and then merged into the general dogmatism with its infinite varieties and off-shoots, including the learned empiricisms of Homæopathy, Hydropathy, and others of still more doubtful character, that still continue to occupy the learned, attract the vulgar, delude the ignorant, and mystify the multitude. All this, however, is foreign to our present purpose, and we must retrace our steps from the light of Greece to the obscurity of Hindustan.

To enable our readers to estimate correctly the value and extent of the addition contributed to the history of medicine by Wise's Commentary, a brief and rapid review of our previous knowledge of the subject, may not be deemed altogether uninteresting or out of place.

To the full and candid work of the learned LeClerc, we have not access at present,—but if our memory be not faulty, it contains little, if any, positive information upon the medicine of

the Hindus, except possibly a few incidental allusions borrowed from the writings of the Arabian physicians, who were not very profoundly acquainted with the matter themselves.

The history of medicine from the time of Galen to the commencement of the 16th century, by Friend, is equally silent.

Of Black's history of medicine and surgery published in 1782, it is sufficient to repeat the opinion entertained by a cotemporaneous writer, that it was—"prolix in ancient history, meagre in the middle ages, superficial in later times, and in the most modern completely uninformed."

The first of the works with which we have any acquaintance, that alludes directly to the Hindus as among the earliest of the successful cultivators of the healing art, is the 'infinitely important and valuable' *Essai d'une histoire pragmatique de la Medecine*, by Kurt Sprengel—a work to which we have been much indebted in the passing remarks upon Egyptian and Hebrew medicine.

His chapter upon Indian Medicine is chiefly compiled from the Greek writers and the statements of modern travellers and authorities, but from having had no access to the original Sanskrit historians, of the existence even of most of which he appears to have been unacquainted, his information is necessarily meagre, and in some respects not very correct.

Bostock, although a diligent reader and evidently acquainted with the writings of nearly every author of repute and trust connected with the origin and progress of physic, has not even mentioned the Hindus in his *History of Medicine*, evidently regarding the little information then extant as too scanty and fabulous to deserve notice.

Dr. Wm. Hamilton is somewhat more explicit on the subject, and sums up his opinions in the following paragraph, which contains, indeed, the whole of the space devoted to the Hindus in his "*History of Medicine, Surgery, and Anatomy*, from the creation of the world to the commencement of the nineteenth Century."

"Notwithstanding the progress which recent researches, no less than ancient traditions inform us, was made by the inhabitants of Hindustan, at the most remote periods, in other branches of knowledge, and in the abstruse science of Astronomy more especially; their proficiency in the art of healing does not appear, from any evidence which either ancient history or modern discovery affords, to have equalled that of nations, in other respects far less enlightened. Their chief dependence, in the cure of disease, consisted, as Strabo informs us, in a rigid attention to diet, and the external application of cataplasms, and other topical remedies. Medicine appears to have been practised chiefly, if not wholly, by persons who were termed *Σαμαναοι* or Samaneans, who exercised their calling by the special permission, and under the immediate superintendence, of the magistrates.

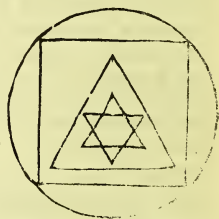
But their practice was encumbered with many difficulties, and the spirit of useful inquiry repressed by sanguinary, mistaken, and injudicious laws. The disclosure of a substance injurious to health, unaccompanied by its corresponding antidote, was punished with the penalty of death; and the door of improvement closed at the hazard of a halter against him who should dare to enter imprudently. The most valuable remedies were proscribed, from the apprehension of mischief arising from their injudicious application: and the courageous practitioner, who had ventured to employ some of those active preparations which are in every day use among modern physicians, would have endangered his neck, had he been unable to point out the remedy for their noxious effects, when wielded by the hands of malice, of ignorance, or of presumption. The mere existence of such a law sufficiently marks the low ebb of medical knowledge among the people who framed it: since it presupposes the fact, unconfirmed by any experience, of every poison having its appropriate and specific antidote, as every disease was believed, down almost to the present day, to possess its specific and peculiar remedy."

The eminent and excellent Missionary, William Ward, of Serampore, in his view of the 'History, Literature, and Mythology of the Hindus,' a work containing much valuable information, has devoted a section to the medical Shastras. He appears to coincide, with a little qualification, in the opinion of Sir Wm. Jones that Eastern "physic is a mere empirical history of diseases and remedies," and gives a brief abstract of some of the Hindu notions concerning fever, dysentery, and other internal diseases, with an enumeration of the medical shastras still extant. The amount of information accumulated by him is scanty, imperfect, and not obtained from the most ancient or purest sources. The question of its probable antiquity is left untouched, and the impression produced by the perusal of the chapter, is certainly unfavorable to the science, information and method really possessed by the Hindu Physicians of a remote date.

In the "Tracts, Historical and Statistical on India," published in a handsome, illustrated 4to volume in 1814, by Dr. Heyne, of the Madras medical department, are portions of a translation of some Hindu works on medicine. The author sets out by stating, that "it is common in India to hear the native physicians represented by some Europeans as a set of ignorant cheats, and extolled by others as miracles of knowledge and wisdom. The fact, however, is, that the great body of medical men in India consists of illiterate pretenders to knowledge, few being entitled to be considered as possessors of real knowledge. Most of them are quacks, possessors and vendors of nostrums. The medical works of the Hindus are neither to be regarded as miraculous productions of wisdom, nor as depositories of nonsense. Their practical principles, as far as I can judge, are very similar to our own, even their theories may be reconciled

with ours, if we make allowance for their ignorance of anatomy, and the imperfections of their physiological speculations."

He furnishes a long and interesting list of medicinal plants most in use, with their Sanskrit, Telinga, and Linnean names, to which are appended a few directions for keeping, gathering, compounding, and administering them. Some of these injunctions are simple and sensible, others ridiculous and childish. The middle of every medicine room was furnished with a sacred spot, consecrated by a mystical sign so very masonic in its form, that we are tempted to transfer it to our pages for the benefit of those among our readers, who may delight in researches upon symbols and signs, and have a firm belief in the antiquity and eastern origin of the mysteries of the masonic brotherhood.



This is followed by an abstract of an Indian treatise on medicine, containing—advice to physicians; a curious chapter on the pulse—Chinese in its childishness and prolixity, with an occasional glimmer of sense and correctness;—remarks on the diagnosis of the three principal diseases produced by *Wadum*, *Pittum*, and *Chestum*, or wind, bile, and slime, with a detail of the numerous diseases that result from these causes—a catalogue of nonsense and a medley of maladies strangely incongruous in their nature and relations. This is succeeded by remarks on the general causes of diseases; a section on diet; one on fever; another upon an unknown disorder termed *Sanny*, which seems to be a jumbling together of many of the worst symptoms of several diseases. The subject of prognosis meets with a due degree of attention, and a general summary of the whole concludes with the following curt and pithy sentences:—

"Thus have I finished the translation of this most extraordinary treatise, and I dare say my readers are by this time as fatigued as I am myself. It may be considered as a summary of all the medical knowledge of the Hindus. We see their absolute ignorance of anatomy, and every thing connected with the functions of the human body; that their system is entirely chimerical and connected with their religious opinions: and the long fasts to which they subject their patients are probably by far the most efficacious of their remedies. I had originally added long notes upon this little treatise, exhibiting the various opinions of other medical writers upon the subject discussed in the text, but upon farther reflection I have been induced to withdraw them, conceiving that the treatise itself exhibited a banquet of absurdity sufficient to satisfy the most voracious guests; while different views of the same ridiculous opinions could not serve to add to the information of the most inquisitive reader."

Dr. Whitelaw Ainslie, in his excellent and detailed work on the *Materia Medica of India*,—to which we shall probably

have occasion to refer again, when remarking upon the section of Dr. Wise's commentary devoted to this department—has, in his preliminary observations, recorded a few remarks upon the subject of the probable antiquity of the medicine of the Hindus, and of its present claims to consideration, more especially as known and practised in Southern India. He has also published a list of Hindu and Mahomedan works on various departments of physic. He does not profess, however, to be learned in Eastern lore, and has evidently obtained the greater part of his information at second hand, from 'Tamul and Telingu practitioners, who were most probably themselves unacquainted with the original Sanskrit works,' of which, according to Heyne, the translations into the dialects of Southern India, are full of errors from the translators having been frequently unequal to their task.

The transactions of the Asiatic Society of Bengal are comparatively poor in the matter of contributions to our knowledge of Hindu Medicine, containing in eighteen parts or volumes scarcely as many separate papers on the subject, and of these not one that can lay claim to any degree of learning or research. In the first, a paper by *Goverdhan Caul*, on the Literature of the Hindus, their medical writings are dismissed in about a dozen lines of very general remarks.

The second is the well known passage from the last anniversary dissertation of the eminent and learned President of the Society, delivered in February, 1794, which as embodying the views of that gifted and discriminating scholar, we have no hesitation in quoting for the information of those who have not access to the Asiatic Researches—the early volumes of which are gradually becoming rare and scarce—or who may not be in possession of Lord Teignmouth's edition of the works of Sir Wm. Jones:—

"I have no evidence that in any language of Asia, there exists one original treatise on medicine, considered as science; physic, indeed, appears in these regions to have been from time immemorial, as we see it practised at this day by Hindus and Muselmans, a mere empirical history of diseases and remedies; useful, I admit, in a high degree, and worthy of attentive examination, but wholly foreign to the subject before us. Though the Arabs, however, have chiefly followed the Greeks in this branch of knowledge, and have themselves been implicitly followed by other Mohammedan writers, yet (not to mention the Chinese, of whose medical works I can at present say nothing with confidence) we still have access to a number of Sanscrit books on the old Indian practice of physic, from which, if the Hindus had a theoretical system, we might easily collect it. The *Ayurvêda*, supposed to be the work of a celestial physician, is almost entirely lost, unfortunately, perhaps, for the curious European, but happily for the patient Hindu; since a revealed science precludes improvement from experience, to which that of medicine ought, above all others, to be left

perpetually open : but I have myself met with curious fragments of that primeval work ; and, in the *Vēda* itself, I found with astonishment an entire *Upanishad* on the internal parts of the human body ; with an enumeration of nerves, veins, and arteries ; a description of the heart, spleen, and liver ; and various disquisitions on the formation and growth of the fœtus. From the laws, indeed, of MANU, which have lately appeared in our own language, we may perceive that the ancient Hindus were fond of reasoning, in their way, on the mysteries of animal generation, and on the comparative influence of the sexes in the production of perfect offspring ; and we may collect from the authorities adduced in the learned Essay on *Egypt* and the *Nile*, that their physiological disputes led to violent schisms in religion, and even to bloody wars. On the whole, we cannot expect to acquire many valuable truths from an examination of eastern books on the science of medicine ; but examine them we must, if we wish to complete the history of universal philosophy, and to supply the scholars of Europe with authentic materials for an account of the opinions anciently formed on this head by the philosophers of Asia. To know, indeed, with certainty, that so much and no more can be known on any branch of science, would in itself be very important and useful knowledge, if it had no other effect than to check the boundless curiosity of mankind, and to fix them in the straight path of attainable science, especially of such as relates to their duties, and may conduce to their happiness."

The remaining papers are mere monographs upon various topics of interest connected with the practice of medicine in this country, and afford no information respecting its indigenous history, antiquity, doctrines, or authorities.

The "Transactions of the Calcutta Medical and Physical Society," a rich repository of valuable practical facts and opinions respecting the topography, diseases—endemic and epidemic—and some of the indigenous remedies of India, together with details of the most appropriate means of managing various tropical maladies, are singularly and unaccountably deficient in the investigation of the medical literature of the Hindus.

With the exception of two or three contributions of no great importance from the pen of Professor Wilson, the only reference to the subject that a cursory examination has enabled us to fall in with, is the following extract from the preface to the 1st volume of the Transactions, published in 1825 :—

"The history of medicine is of more interest than utility. Disease may be alleviated or subdued without a knowledge of those stages, by which the skill that has been successfully exerted, is brought within the reach of its possessor. Neither can it be expected, that the imperfect science of the *Baids* or *Hakims* of India, shall offer any instructive lessons to their better educated brethren of Europe : still, to liberal and cultivated minds, the progress and condition of science in all ages, and in all climes, must be objects of interest ; and they will gladly welcome the light that may be thrown upon the past or present existence of Oriental medicine, by information gathered from authentic sources, or derived from actual observation.

The history of Mahommedan medicine, comprising the most flourishing periods of the schools of Bagdad and Cordova, has already been fully elucidated, but it stops with the decline of the power of the Caliphs: a long subsequent period is, therefore, enveloped in obscurity in this branch of enquiry: and the medical history of the Hindus is hitherto an utter blank. In these respects, therefore, there is ample scope for investigation, novel at least, and interesting, and perhaps not wholly uninteresting, which may be prosecuted with every advantage in the country in which we at present sojourn.*

This is a matter much to be regretted when we consider the number of able and eminent Oriental scholars of which the Medical Department could boast, prior to the comparatively recent existence in its ranks of probably one of the most profound and learned of them all, Horace Hayman Wilson, who, with a solitary exception, has contributed more to our knowledge of Hindu Medicine than any other authority prior to the appearance of the commentary now under review.

The paper of the late lamented pains-taking traveller and antiquary Csoma de Koros published in the Journal of the Asiatic Society of Bengal in 1835, exhibits a brief abstract of certain portions of one of the Hindu medical shastras which appears to have been translated into the Tibetan tongue: it is an interesting fragment, but gives no detailed or connected view of the subject.

The most minute and intrinsically valuable of all the various sketches with which we are acquainted, is undoubtedly the "Essay upon the antiquity of Hindu medicine," already noticed, of Dr. Royle, who now occupies an important practical chair at the King's College of London, and has recently produced a systematic treatise upon the department of medicine which he is employed to teach. It is chiefly valuable on account of the careful industry and logical acumen with which the various steps of the difficult enquiry are successively conducted, and of probably all the then known authorities having been consulted and collated.

The chapter on Hindu Medicine in Elphinstone's History of India is brief and chiefly taken from the essay of Royle, the work of Ward, and a paper by Mr. Coates in the Transactions of the Literary Society of Bombay, which we have been unable to consult. The following extract embodies the whole of the information which he has afforded upon the subject:—

"Their acquaintance with medicines seems to have been very extensive. We are not surprised at their knowledge of simples, in which they gave early lessons to Europe, and more recently taught us the benefit of smoking datura in asthma, and the use of cowitch against worms: their chemical skill is a fact more striking and more unexpected.

* Medical and Physical Transactions, Vol. 1. p. iv. Preface.

They knew how to prepare sulphuric and nitric acid, and muriatic acid; the oxide of copper, iron, lead (of which they had both the red oxide and litharge), tin, and zinc; the sulphuret of iron, copper, mercury, antimony, and arsenic; the sulphate of copper, zinc, and iron; and carbonates of lead and iron. Their modes of preparing those substances, seem, in some instances, if not in all, to have been peculiar to themselves.

Their use of these medicines seems to have been very bold. They were the first nation who employed minerals internally, and they not only gave mercury in that manner, but arsenic and arsenious acid, which were remedies in intermittents. They have long used cinnabar for fumigations, by which they produce a speedy and safe salivation.

Their surgery is as remarkable as their medicine, especially when we recollect their ignorance of anatomy. They cut for the stone, couched for the cataract, and extracted the fœtus from the womb, and in their early works enumerate no less than 127 sorts of surgical instruments. But their instruments were probably always rude. At present they are so much so, that, though very successful in cataract, their operations for the stone are often fatal.

They have long practised inoculation; but still many lives were lost from small pox, until the introduction of vaccination.

The Hindu physicians are attentive to the pulse and to the state of the skin, of the tongue, eyes, &c., and to the nature of the evacuations; and they are said to form correct prognostics from the observation of the symptoms. But their practice is all empirical, their theory only tending to mislead them. Nor are they always judicious in their treatment: in fevers, for instance, they shut up the patient in a room artificially heated, and deprive him, not only of food, but drink.

They call in astrology and magic to the aid of their medicine, applying their remedies at appropriate situations of the planets, and often accompanying them with mystical verses and charms.

Many of these defects probably belonged to the art in its best days, but the science has no doubt declined; chemists can conduct their preparations successfully without having the least knowledge of the principles by which the desired changes are effected; physicians follow the practice of their instructors without inquiry; and surgery is so far neglected, that bleeding is left to the barber, bone-setting to the herdsman, and every man is ready to administer a blister, which is done with the juice of the euphorbium, and still oftener with the actual cautery.*

We shall now proceed to examine and analyse briefly the commentary which forms the text of our remarks, and endeavour to investigate the claims that it affords from internal evidence, of the nature and extent of the practical and theoretical knowledge possessed by the Brahmanical sect of medical philosophers.

Dr. Wise's work is divided into five books; the first treating of the History of Medicine; the second being devoted to the subject of Anatomy and Physiology; the third containing the department of Therapeutics; the fourth that of the Practice of Physic; and the last that of Midwifery, and the diseases of women and children. This is a convenient and simple arrangement

* Elphinstone's, India, vol. 1, p. 279-81.

of the subject, and embodies in a condensed form a vast mass of matter, of which we can only hope in the space allotted to us, to present our readers with a brief review of the most prominent and salient points of interest.

The first chapter contains, as might be expected, the Hindu notions of the origin and history of medicine, and belongs so exclusively to the regions of fable and fiction as to be deserving of little notice and less credit. Most nations in the early stages of their existence, have attributed all remarkable and incomprehensible occurrences to the influence of the deities worshipped in the forms of their various superstitions and idolatries, so that diseases and a multitude of natural phenomena have been ascribed by them to supernatural agency.* The Hindu Mythology out-herods all others in absurdity and extravagance, and in this particular is in no way inferior to the legends and traditions of the most uncivilized of savages. The four immortal Vedas are stated to have been produced in the first or golden age "during which mankind remained prosperous, virtuous, happy, and free from disease." Disease, misery, the shortening of life, and their attendant woes, appeared in the Treta Yuga, or second age† when "a third of mankind were reprobate." In the third age, half of the human race were depraved; and the climax of corruption characterises the present or Kali Yuga. Brahma, from sheer benevolence and compassion for a fallen race, produced the Upavédas, of which the Ayur-véda, already noticed, is regarded as the sacred medical record of the Hindus, besides being of the highest antiquity and authority. The Shastras ascribe the production of this veda to Shiva. A fragment only of the lac of slokas of which it originally consisted, has survived the

* "Morbo vero ad iram deorum immortalium relatos, et ab iisdem opem posci solitam."—*Celsus*.

† How unfavorably does the Hindu mystery and prolixity contrast with the simple, clear, and forcible exposition of the same subject contained in Horne's work:

"The diseases to which the human frame is subject would naturally lead one to try to alleviate or remove them: hence sprang the ART OF MEDICINE. In the early ages of the world, indeed, there could not be much occasion for an art which is now so necessary to the health and happiness of mankind. The simplicity of their manners, the plainness of their diet, their temperance in meat and drink, and their active life, (being generally occupied in the field and in rural affairs,) would naturally tend to strengthen the body, and to afford a greater share of health than what we now enjoy. So long as our first parents continued in that state of righteousness in which they were created, there was a tree emphatically termed the tree of life, the fruit of which was divinely appointed for the preservation of health; but, after the fall, being expelled from Eden, and, consequently, banished for ever from that tree, they became liable to various diseases, which, doubtless, they would endeavour to remove, or to mitigate in various ways. From the longevity of the Patriarchs, it is evident that diseases were not very frequent in the early ages of the world, and they seem to have enjoyed a sufficiently vigorous old age, except that the eyes became dim and the sight feeble."—*Horne, Op. Cit. Vol. iii. p. 502.*

ravages of time. The medical shastras appear to have been very numerous, and of them the works of Charaka and Susruta are held in the highest repute : for a brief summary of their contents, we must refer the curious to the Commentary.

The second chapter is devoted to the discussion of the rank of practitioners and duties of teachers. It commences with the fabulous birth of the first of the Vaidya or medical caste, from whom the hereditary physicians of the present time are descended, and declares that "Brahmans learn the medical shastras for their advantage; Khetriyas for the benefit of their health, and Vaidyas for their subsistence." Other castes may study medicine, "when they are learned, honest, and men of good descent."

The old race of professors appear to have been peripatetic practitioners, who wandered from place to place in search of knowledge, general and professional, attended by their train of pupils, lectured in the open air, and taught by means of prelections, which were carefully noted by their scholars.

The present generation of Vaidyas take a few house pupils whom they educate either with or without reward, the gratuitous being the most honorable course of instruction, "procuring renown in this world, and the highest benefits in a future state:" in some instances, however, they are pensioners of the wealthy.

The qualifications of a good teacher are such as might find a place in the most unexceptionable code of modern medical ethics :—

"A good teacher is like rain falling upon the germinating seed, and should possess the following qualifications :—A perfect knowledge of the Shastras, joined to extensive practical knowledge and skill. He should be kind and humble to every one; he should have no defects of body, and should always be ready to expose the good rather than the bad qualities of others; he should be clean and neat in his person, and possess and exhibit to his pupils all kinds of medicines and instruments. He should always be increasing his knowledge of books, and should neither be angry at the improprieties of others, nor fatigued by their importunities. He should be kind and considerate to his pupils and be able to explain the most complicated statements, in the simplest and most perspicuous language. Such a person as this, who instructs a pupil, when of good parentage, is like the seasonable cloud and rain upon the corn field, which quickly matures its valuable produce."*

Bad teachers are denounced, and the class of physicians generally are painted in very favourable colors, as being often more learned and less proud than the Brahmans, as well as usually poets, grammarians, rhetoricians, and moralists, and esteemed as the most virtuous and amiable of the Hindus.

* Wise, Op. Cit. p. 12.

Although not occupying the same elevated position as the medical hierarchy of Egypt and Israel, the Hindu physician held a respectable and useful office, and was generally esteemed in proportion to his individual deserts. The Hindus appear in fact to have been fully aware, that "an enlightened physician and a skilful surgeon, are in the daily habit of administering to their fellow-men more real and unquestionable good, than is communicated, or communicable by any other class of human beings."

With some few exceptions, however, the modern race of Vaidyas do not appear to be so learned, or so much looked up to as their predecessors were, and we doubt much whether the Hindus of our own time are of opinion, that

"A wise physician skill'd our wounds to heal,
Is more than armies to the public weal."

The estimation in which the professors of medicine were held by the ancient Greeks is well known to every classical student, from the divine honors paid to Æsculapius and the history of his sons Podalirius and Machaon, down to the celebrated saying of Cicero, "*Neque enim ullâ aliâ re homines propius ad deos accedunt, quam salutem hominibus dando.*"

The duties and character of pupils are laid down with a considerable degree of minuteness, and not a little attention to the superstitious observances which disfigure the Hindu systems of education. He is to commence his studies on a lucky day, not to cut his beard or nails during the prosecution of his professional acquirements, not to read the medical shastras "on unlucky days, or when the sun is obscured by clouds; on the first two days of a new moon; when it thunders; at unseasonable times; at the morning dawn or the evening twilight. He must not study on holidays, on the day on which he meets a corpse, on which the governor of the province is sick, when fighting occurs, or when war approaches." "When at his lesson care must be taken not to allow any one to pass between the pupil and teacher, as it will interrupt the supposed passage of good qualities from the latter to the former." "If the student seek for long life, he should eat with his face to the east; if for exalted fame, to the south; if for prosperity, to the west; if for truth and its reward, to the north."—(*Manu*, p. 28, cap. 2, 52.)

As a set-off against these absurdities, he is strictly enjoined the practice of industry, perseverance, sobriety, chastity, humility, and most of the other qualities that tend to produce a good scholar and a learned man.

The chapter upon the duties of the physician, of his attendants, and of the patient, exhibits a ludicrous admixture of truth and error, light and darkness, sobriety and extravagance, sound practical wisdom and empty puerilities. The person, character, acquirements, and observances of the practitioner are minutely detailed, and occasionally with a remarkable degree of truth and acuteness, as in the following description of an ignorant physician:—

“Without such a knowledge of books he will be confused like a soldier afraid in the time of action, will be a great sinner, and should be capitally punished by the Rajah. On the other hand, a want of practical knowledge will impede his advancement, and his senses will be bewildered when called on to treat acute diseases. Such a physician will not be esteemed by the great, as he cannot practice with success when only instructed in half his duty. Such a person is the murderer of his species, and the medicines prescribed by him may be compared to poison or lightning—such ignorance prevents all the good effects of remedies. As the two wheels of a chariot or the two wings of a bird, assist in their progress, so will the knowledge of the shastras and of practice lead the physician to proceed with safety and success in the treatment of the diseased, but should the physician want either of these essential qualifications, his progress will be impeded, as one wing or one wheel will impede the progress of the bird or the chariot.

Such persons flatter the patient's friends, are diligent, take reduced fees, are hesitating and doubtful in performing difficult operations, and pretend that their bad success is caused by the bad attendants, &c.

Still some patients will be saved under the care of such a physician, as a worm in destroying the sacred shastras will sometimes leave in its depredations, the wise representations of some of the sacred letters. A bad physician may cure one patient, by which he endeavours to establish his fame, without considering the thousands he has killed; such a person is like a boat in a storm without a pilot, or a blind man in the performance of any work, and is to be looked upon as the angel of death.”

A quaint old writer has somewhere denominated medicine a “meditation upon death,” and a more recent authority has defined it to be “the art of amusing the patient, while nature cures the disease.” The Hindus knew better, and declared that in skilful hands “medicine becomes like the water of immortality (*Amrita*).” Their characteristics of a good physician embody almost every human and divine perfection, “such as,” says the Commentator, “is rarely to be found even in heaven.” Among other professional distinctions he should “carry an umbrella and stick in his hand,” rather a remote and respectable origin for the gold-headed cane, so well known in Europe during the last century. The indications which are supposed to qualify for success and eminence, are, “an agreeable voice, a small tongue, eyes and nose straight, with thin lips, short teeth which do not expose the gums, and thick hair which retains its vigour.” This may

be contrasted with the more modern qualities considered necessary for a complete surgeon, "the eye of an eagle, the heart of a lion, and the hand of a lady."

Among the observances enjoined are many of the most childish and absurd nature, with an enumeration of good and bad omens of which not a few are embodied in the popular superstitions of the middle ages, and still continue current among the ignorant and credulous of our own times. The subject of fées is not forgotten, and as usual the Brahmans derive the chief benefit of the physician's gratuitous labours. There is much more concerning these matters contained in the Commentary which will repay the trouble of perusal, and quite enough to prove that the medical ethics of the Hindus, in spite of their numerous conceits and crudities, were by no means of a low and contemptible order, and occasionally exhibit evidences of sound reasoning and practical good sense quite as applicable to the practice of the profession at the present day, as they were at the time of their production.

The second book plunges 'in medias res,' and introduces us to the Anatomy and Physiology of the Hindus. They regarded the body as a species of Microcosm, with divisions corresponding to those of the globe, possessing its mountains, its frigid, temperate, and torrid regions, with its oceans and fluids under astral influence, all composed of the five elements which form the body corporate of our planet, viz. earth, water, air, fire, and ether. Each of these communicates its special influence to the structure in which it preponderates, and after digestion, by an inherent property, joins its fellow in the frame. Skin, vessels, bone, hair, and flesh are conjectured to be chiefly compounded of earth; the excretions, some of the secreted matters, blood, and phlegm, of water; hunger, thirst, and insensibility are attributed to fire; movement, conscience, termination of a work, and retaining happiness fall to the lot of air; while desire, revenge, stupidity, fear, and shame emanate from ether, all connected with an active or warm, and a passive or cold principle, which are increased and strengthened by the rays of the sun and moon. To all living bodies thus compounded, the element producing life or action is superadded.

This sol-lunar and elemental theory, the offspring of fancy and imagination, is not a whit inferior in absurdity to the doctrines taught and maintained by the most profound and eminent of the philosophers of ancient Greece, nor was any substantial advance made in the matter, until chemistry had

descended from its golden dreams* to the level of common sense, and by increasing the number of true elements, diminished the amount of error pervading all the older theories concerning the composition of both inorganic and organic bodies—the latter department of the interesting and wonderful science which has nearly revolutionized the face of nature and exercised the most extraordinary influence upon the arts, sciences, and civilization of the universe, being still comparatively in its infancy.

The subjects of generation and the growth of the body which are not only unsuited for discussion in our pages, but are of the same fanciful and incomprehensible character as the wildest flights of imagination of the alchemists or the most unmeaning mysteries of their peculiar jargon, are next detailed, and those who are curious in the matter, will find abundant means for its gratification in the pages of the Commentary, and in the learned work of Professor Webb, entitled "*Pathologia Indica*," to which we hope hereafter to have a more fitting opportunity of referring, in connection with the origin and progress of the Medical College of Bengal, of which Institution that gentleman is by no means the least distinguished ornament.

The physiology of the Hindus is of an extremely imperfect character, as might have been expected, and consists chiefly of crude speculation and absurd hypotheses, of which the following account of the important process of digestion is an adequate and striking example.

"Six varieties of the digested part of food or chyle are known. When the food is astringent, sour, moist, &c. the chyle will become of the same nature. When digestion is accomplished, the respective elements unite with those which had entered into the formation of the body; the earth unites with the earth, the water with water, &c., and they, acting on the inherent qualities of each of the five elements, mix and increase those in the body; smell is the property of earth, with that of the body; taste with water, touch with air, and noise with ether (*ākāśa*). The juice thus separated from its impurities is called chyle (*rasa*) which nourishes, strengthens, and gives color to the body."

Some imagine twenty-four hours, others six days, and a third set a month to be necessary for the complete performance of the function of assimilation!

The strength or vital principle (*oja* or *tej*) is supposed to be situated in the centre of the chest, and to be the result of "a mixture of the pure fluid, in the same manner as a bee sucks the juice from different flowers, and produces honey."

* Chemistry was defined by Suidas, who lived in the tenth century and published a Lexicon, to be "*the art of making gold and silver.*"

The stomach again is compared to "a cooking pot containing water and food, which is boiled by the heat of the bile beneath it."

Under the head of structural anatomy, it appears that the body consists of humours, and essential parts with their appendages. The humours are air (vāyu), bile (pitta), and phlegm (kofa), the three pillars or supports of the system. "As the moon sheds moisture, and abstracts the sun's rays, which dry up and bestow energy upon the earth, and the air moves from place to place, so phlegm bestows moisture, bile withdraws it by its heat, and air wafts it about in the microcosm or animal body," say the Hindu physicians, to which the learned Commentator appends the following note:—

"This ingenious theory which has been so frequently renewed, and was for so many ages universally believed, seems to have been derived from the Hindus; from whom it was adopted by the Egyptian and Grecian priesthood. It is defective, however, in excluding the blood which, notwithstanding has been stated as one of the fundamental parts of the body."

We are not altogether prepared to coincide in this view, and incline rather to the opinion expressed by Sir Wm. Jones in regard to the identity between the divisions of the zodiac in the Astronomy of India and of Greece, viz. that both received it from an older nation, 'from whom the Greeks and the Hindus, as their similarity in language and religion fully evinces, had a common descent.'

The humours are described in detail, and with an occasional gleam of sense in the general gloom pervading the theories regarding them. Among other points of interest, it is said, that "the pure part of digested food is of a milky color, and is conveyed to the heart by means of the domonic vessels, where it is mixed with the blood. Charaka calls these vessels the chyle carrying vessels (rasyani)." Are we to believe from this that the Hindu Physiologists were acquainted with the existence of the lacteals, as well as of the thoracic duct? The existence of the latter may possibly have been known to them, but we doubt much whether any satisfactory evidence concerning their knowledge of the former can be adduced. Has Charaka given any account of the vessels such as would at once enable us to determine the point? Upon this, and many similar topics, Dr. Wise's commentary does not furnish us with the exact kind of information that would have been most satisfactory and desirable—viz. detailed translations of the passages relating to them contained in the works from which the abstracts of their opinions have been derived. Should the Commentary ever come to a second edition, and we regard it as far too valuable a contribution to the history of medicine

to disappear from the list of permanent authorities upon the subject, we trust that the author will supply this important desideratum, either in the form of notes, or incorporated in the text in such manner as to be easily distinguished from it.

The essential parts or the supporters of the body consist of "the hard and soft parts, and fluids," seven in number, comprising "chyle, blood, flesh, fat, bone, marrow, and semen"—all of which attracted the attention of Hindu physiologists, and were described by them with a considerable degree of ingenuity. Some of their qualities were as correctly ascertained as could have, under any circumstances, been accomplished without the aid of modern science and means of investigation; while, as usual, the fanciful and speculative predominated over the sober and rational in the theories concerning their production and uses.

The Sanskrit authors enumerated 300 as the number of bones belonging to the body, which Dr. Wise seems to regard as the true number according to modern anatomists—and among them we are surprised to find him place the cartilages of the larynx and trachea, of the external ear, and of the ribs, &c. Surely there must be some error in this, for we are not aware of the existence of any modern anatomical authority by whom bones and cartilages are regarded as identical structures, and classed accordingly. That the one may pass into the other, and that bones are originally of a cartilaginous structure in which osseous matter is subsequently deposited is well known, but unless the trachea and costal cartilages become ossified from age or disease, they can scarcely be considered as belonging to the osseous system properly so called.

The excretions are regarded as the impurities of the seven essential parts, and their nature was by no means correctly known or understood. Among them, for example, is placed the milk, which is certainly not an effete matter, nor is the blood, which according to Manu, was ranked among the twelve impurities of the frame.

Joints were divided into the movable and immovable, and among them were classed the teeth, sockets of the teeth, and the "connection of vessels with the heart and organ of thirst, eighteen in number," showing that with some truth, much error and invention were mixed. They counted eight varieties, comprising in all 210 joints.

The ligaments, with which the nerves are confounded, consisted of four varieties, and were no less than 900 in number, concerning which, beyond a bare enumeration, the Commentary supplies us with no information.

The muscles are supposed to serve the purpose of covering, strengthening, and retaining in their places vessels, tendons, bones, and joints, and mount up to five hundred in the male, and five hundred and twenty in the female. Concerning the action of muscles nothing is said, and we suppose, therefore, that nothing was known.

The Hindu notions concerning the vascular system were of the most fantastic nature, and evidently more the result of fancy than of actual observation. They considered the umbilicus as the origin of all the vessels, and the principal seat of life (prán): the vessels themselves were regarded as conduits of blood, bile, air, and phlegm, and consisted of forty principal trunks, ten for each, subdivided into 175 branches, making in all 700 branches. With the exception of a few correct ideas concerning the blood, their knowledge was of the most superficial and incorrect nature. The arteries were regarded as air vessels, doubtless from being found empty after death, although we do not find the fact mentioned.

The sections concerning the canals, cellular tissue, fasciæ, receptacles, and orifices of the body, contain little that is striking or valuable, yet they serve to evince the care and diligence with which the study of Anatomy must have been pursued.

The skin was divided into seven layers which were likened to the pellicle formed on the surface of milk when boiled, and were evidently produced by the manner of dissecting macerated bodies with brushes made of reeds or bamboo bark.

The subject of dissection is one of so much interest in the history of medicine, and of such vital importance in its proper pursuit and practice, that we are tempted to quote the whole of the short section regarding it:—

“All the Rishis are said to have recommended the dissection of the human body, as proper and necessary. Manu, the great legislator, and the one most respected by the Hindu sages, says (85) “one who has touched a corpse, is made pure by bathing;” and again (77) “should a Brahman touch a fresh human bone he is purified by bathing; and if it be dry by stroking a Cow, or by looking at the sun, having sprinkled his mouth duly with water.”

Charaka, one of the Munis and Physicians, says that a practitioner should know all the parts of the body, both external and internal, and their relative positions with regard to each other. Without such knowledge he can not be a proper practitioner.

Susruta, a Rishi of the highest rank, says that a Jogi (a holy man) should dissect, in order that he may know the different parts of the human body; and a surgeon and physician should not only know the external appearances, but internal structure of the body; in order to possess an intimate knowledge of the diseases to which it is liable, and to perform surgical operations so as to avoid the vital parts. It is by combining a knowledge of books with practical dissection, that the practitioner will alone attain an intimate knowledge of the subject of his profession.

The body which is to be examined by dissection should be that of a person who had neither been destroyed by poison, nor had died of a long disease, as the structure of the body will be altered by the deleterious substance taken, or destroyed by the ravages of disease. In like manner the person should not have been very old, and all the members should be in a perfect state.

When a proper body for the purpose has been selected, the dejections are to be removed, the body washed, and placed in a frame work of wood, properly secured, by means of grass, hemp, or the like. The body is then to be placed in still water, in a situation in which it will not be destroyed by birds, fishes, or animals. It is to remain for seven days in the water, when it will have become putrid. It is then to be removed to a convenient situation, and with a brush, made of reeds, hair, or bamboo bark, the body is to be rubbed so as, by degrees, to exhibit, the skin, flesh, &c., which are each in their turn to be observed before being removed. In this manner the different corporeal parts of the body already enumerated will be exhibited; but the life of the body is too ethereal to be distinguished by this process, and its properties must therefore be learned with the assistance of the explanations of holy medical practitioners, and prayers offered up to God, by which, conjoined with the exercise of the reasoning and understanding faculties, conviction will be certain.*

We have already seen that the mere touch of a corpse was prohibited among the Jews as a pollution, and that the Egyptian knowledge of anatomy was principally confined to the low and wretched outcasts employed to embalm and disembowel the bodies of the dead, who were so much the type of every thing that was low, polluted, and degraded among the Egyptians, that no corpse of a royal or beautiful female was ever handed over to the embalmers until unequivocal indications of decay and decomposition had been exhibited. Among the earlier Greeks the study of anatomy was neglected by the Asclepiades, and the laws of Athens were so strict respecting the prompt burial of all bodies, that it was considered a sacred duty, and its neglect punished with such severity that six officers of rank were condemned to death, notwithstanding their having gained a brilliant victory, for not having taken sufficient pains to recover the bodies of the slain warriors which had fallen into the sea.† During the siege of Troy hostilities were intermitted at Priam's request to permit of the burning of the dead, and after each action the first duty of the victors was to bury the bodies of such of their foes as were left dead upon the field. The fear of the fate of the victors of Arginusa, prevented Chabrias from following up his victory near Naxos, until he had provided for the sepulture of the slain.‡ The anatomical knowledge of Empedocles, Alcmeon, Democritus, and Hippocrates was exclusively

* Wise, Op. Cit. pp. 68-69.

+ Xenophon, Hist. Græ. lib. 1.

‡ Diodor, lib. xv. c. 35.

derived from the dissection of animals, and so also would that of Aristotle appear to have been, since although in his works he often institutes comparisons between the structure of the bodies of animals and of man, the most diligent and learned enquirers are unable to adduce substantial proof of his having practised human anatomy. The two immediate successors of Ptolemy Soter were the first to permit and encourage by their own example, the dissection of the human body, as Celsus relates in his preface, and Herophilus and Erasistratus were the two first and most celebrated of the Greek anatomists; they flourished in the third century preceding the Christian Era. It is well known that the prejudices of the vulgar in Europe to the pursuit of anatomy have extended even to our own times: in the middle ages so rare were the opportunities afforded of dissection, that in the 14th century Mundinus, Professor at Bologna, astonished the world by the public dissection of two human bodies; and in the 17th century, Cortesius, Professor of anatomy at the same place, and subsequently of medicine at Messina, 'had long begun a treatise on practical anatomy which he had an earnest desire to finish, but so great was the difficulty of prosecuting the study even in Italy, that in twenty-four years he could only twice procure an opportunity of dissecting a human body, and even then with difficulty and in a hurry.' The melancholy history of the eminent anatomist Vesalius is well known, but what will our readers say to the following exhibition of a barbarism worthy of the worst days of the dark ages, which occurred in Edinburgh, the 'Modern Athens', on Sunday, the 29th of June, 1823:—

"A coach containing an empty coffin and two men was observed proceeding along the south bridge. The people suspecting that it was to convey a body taken from some church-yard, seized the coach. It was with difficulty that the police protected the men from the assaults of the populace, the coach they had no power to preserve. The horses were taken from it, and together with the coffin, after having been trundled a mile and a half through the streets of the city, it was deliberately projected over the steep side of the Mound, and smashed into a thousand pieces. The people following it to the bottom, kindled a fire with its fragments, and surrounded it like the savages in Robinson Crusoe, till it was entirely consumed. In this case there was no foundation for their suspicions. The coffin was intended to have conveyed to his house in Edinburgh, the body of a physician who that morning had died in a cottage in the neighbourhood.*

In the winter session of 1822-3, a body was discovered on its way to the lecture-room of an anatomist in Glasgow, and in spite of the exertions of the police, aided by those of the military, this gentlemen's pre-

* *Westminster Review*, vol. 2, p. 85.

mises and their contents, which were valuable, were entirely destroyed by the mob. For some time after this achievement, it was necessary to station a military guard at the house of all the medical professors in that city."*

Lizars, an eminent professor of anatomy in Edinburgh, who published a few years since a well-known system of anatomical plates, says in the preface to the second part :—

"In place of living in a civilized and enlightened period, we appear as if we had been thrown back some centuries into the dark ages of ignorance, bigotry, and superstition. Prejudices, worthy only of the multitude, have been conjured up and appealed to, in order to call forth popular indignation against those whose business it is to exhibit demonstratively the structure of the human body, and the functions of its different organs. The public journals, from a vicious propensity to pander to the vulgar appetite for excitement, have raked up and industriously circulated stories of the exhumation of dead bodies, tending to exasperate and influence the passions of the mob ; and persons, who by their own showing, are friendly to the interests of science, have, in the excess of their zeal that bodies should remain undisturbed in their progress to decomposition, laboured to destroy in this country, that art, whose province it is to free living bodies from the consequences inseparable from accident and disease."

It is true that these prejudices were directed more towards the revolting practice of exhumation and its attendant horrors, than against the mere dissection of the human body, yet it brought public odium upon anatomy and its professors, to an extent which nearly extinguished its scientific prosecution in Great Britain. Nor were the prejudice and violence confined to Scotland. We ourselves, not sixteen years since, have seen the door of a large London Hospital besieged by a mob of violent and demented Irishmen, who threatened to hang the house surgeon on the nearest lamp-post, for having made a post mortem examination of the body of a deceased bricklayer who died from the effects of a fall from a lofty scaffolding ; and there is no doubt they would have executed their threats, had they succeeded in obtaining possession of his person.

Knowing all this then, we find it impossible to award too high a degree of praise to the sound and philosophical views entertained by the old race of Hindu philosophers respecting the 'uses of the dead to the living,' and we think it scarcely possible to withhold from them the immortal credit of being the first scientific and successful cultivators of the most important and most essential of all the departments of medical knowledge.

The description of the vital parts of the body and the consequences of their being wounded, 'afford,' as Dr. Wise properly remarks, 'a convincing proof of the great practical

* *Westminster Review*, p. 84.

experience of the Hindu writers'—a knowledge and experience only to be acquired by frequent and careful dissection. 'In Susruta the dangerous parts are all named and described, and the necessity of avoiding them in operations pointed out. The consequences of wounds near the great toe in causing tetanus; in the palm of the hand, in producing such a degree of hæmorrhage as will require amputation of the arm; of the effects of wounds of the testicle and groin, and of fractured bones of the head and breast, which are to be raised or removed &c. are all stated in this practical work.'*

The vital parts of the body are by them supposed to be one hundred and seven in number.

Life, according to the Hindus, consists in the 'combination of the soul, the mind, the five senses, and the three qualities of goodness, passion, and inertness'† which however incorrect, is a more just and rational view of the subject than the Pythagorean doctrine or those of Heraclitus, Plato, and the Stoics, with all of whom heat or fire in some form or other was supposed to be the origin and chief constituent of the vital principle.

The *Soul* which plays an important part both in the cosmogony and the metaphysics of the Hindus, is represented to be 'a shadow or emanation from God the Eternal, who is without beginning or end, is invisible, immortal, and is only known by reflection:—when it bedews the five elements it produces the living body, and becomes by its actions evident. It is liable to decrease, and is influenced by medicine. There is no difference between the human soul and the soul of the world; this being only the exterior and condescending manifestation of God, while the human soul is its reflection into itself, and its elevation above itself is the Divine soul.'‡

The Soul is supposed to be the animating principle of the body, to communicate knowledge, judgment, and happiness; to preside over sleeping and waking; always to be pure in itself, but not to act usefully without the mind 'and the female energy (*prakriti*.)' It is equally the source of the knowledge and ignorance, happiness and misery, goodness and wickedness, and other spiritual qualities of the individual. It is represented by some of their medical writers to exist also in 'beasts, animals, and demigods according to its conduct in former states of existence'—and when it has bedewed the body with its twenty-four qualities, it performs all the functions of the body generally, as well as of the organs of special sense.

United with the mind, in addition to being the motive agent in the production of the mental and moral qualities, it produces

* Wise, Op. Cit. p. 69.

† Ibid, p. 74.

‡ Ibid, p. 75.

inspiration and expiration. the opening and closing of the eyelids, &c.

The *mind* (*mana*) according to most of the authorities is 'a quality or power of the soul by which a person reasons and thinks'—is incomprehensible, and known only through the operation of the senses; is chiefly seated in the head between the eyebrows, but by some conjectured to be lodged in the heart, and 'resembles the light of a lamp by which the person hears, sees, tastes, and knows.' 'Some Pandits says that the soul and the mind are the same essence; as there can be no soul without mind, nor mind without the soul.'

The five elements are represented as forming the five organs of sense, the five objects of sense, and the five perceptive judgments, over which the mind presides, and through which its operations become manifest. Too much or too little exercise injures, while a moderate amount of use maintains them in health.

The Commentator concludes this section with the observation that 'from these remarks it appears that the soul, the emanation from the deity, united with the mind and senses, performs all the vital actions of the body,' and that 'the body, mind, and soul are considered, therefore, as the three great pillars which support the system.'

We much regret that in addition to his own condensed abstract, Dr. Wise should not have given us more copious specimens of the exact mode and style of reasoning adopted in the Hindu Medical Shastras upon this interesting and difficult subject of enquiry. Their opinions, so far as we are able to judge from the scanty evidence before us, although tinged with some of the peculiarities inseparable from eastern philosophy and speculation, are upon the whole more sound and elevated than those of most of even the highest order of Grecian Metaphysicians, and far superior to the doctrines of any other cotemporaneous nations with which we are acquainted. To enable our readers to form a comparative estimate, we have subjoined in a note a very brief abstract of the views of some of the most eminent physicians and philosophers of ancient Greece concerning the soul and life.*

* The assertion that the soul consists of two parts, the one intellectual *φρένες* and the other non-intellectual, *θυμος* and that the former is seated in the brain, and the latter in the heart, is attributed to PYTHAGORAS.—According to the same authority, the senses are, so to speak, drops of the intellectual soul, which is seated in the brain and immortal.

EMPEDOCLES at a later period thought that every thing in nature is animated, or full of divinities; in consequence of which human souls are not only identical with Gods, but likewise with the souls of animals, because they are all emanations from the great soul of the world.

The chapter on Temperaments is a curious specimen of the intimate and inseparable conjunction of sense and nonsense,

ANAXAGORAS not only maintained that the soul was of an igneous or ethereal nature, but according to Aristotle, was the first who regarded it as immortal. He likewise professed the opinion of all nature being animated, and of the human soul, as well as the soul of animals and of plants being nothing more than emanations from the general soul of the world: he also considered that the hands were the most characteristic distinction between man and animals, and contained the principle of the superior intelligence of the former.

DEMOCRITUS regarded the soul as the motive power, and supposed it to be of a spherical form, of an igneous and ethereal nature, and indivisible; thought, motion and sensation, he, therefore, conjectured to be the result of the activity of one and the same substance.—His principle was essentially a distinct form of materialism, which he was the first to promulgate.

HERACLITUS, whose system exercised a marked influence over subsequent medical theories in Greece, regarded all bodies as owing their origin to the condensation and rarefaction of fire; by the condensation of fire, according to him, air was produced, by the condensation of air, water, and by the condensation of water, earth. According to these notions, the most subtle principles always entered first into the formation of bodies; the soul, therefore, as the first cause of all motion, was attributed to the evaporation of fire. The human soul, being still regarded as an emanation from the soul of the world, was intellectual in proportion to its participation in its igneous nature.

Without attempting to enter into an analysis of the Platonic system of Psychology, it may be mentioned that PLATO taught the doctrine of the creation of sublunary beings after the model of Divine Natures, and also the creation of a class of spirits or sub-divinities, to whom was assigned the task of creating all natural objects. These spirits revolving round the world like the sun, the moon, and the stars, were occupied, among other duties, in creating animals, with the bodies or souls of which they incorporated themselves, and which in consequence, partook more or less of their own nature; it was thus that every human soul had a divine, intelligent constituent part, and a corporeal constituent part, destitute of intelligence. From its participation in the celestial nature, the soul prior to its creation was placed in the upper regions of light and truth, in the happy abode of spirits, where it participated in the divine nature of the creator; it was afterwards joined to the body of an animal, which served as a prison until its deliverance by death occurred.

The divine spirit first constituted our bodies in accordance with the wise intentions of the supreme intelligence, with extremely minute and slender figures, resembling the triangular form of flame, to which, after the addition of the special matter mixing the body and soul together, God adds the soul, placing it chiefly in the brain, of which the form is spherical, &c. Life consists of fire and spirit, the former of which is maintained by the heat of the blood. The soul from its divine nature is the most noble part of man, and the head, from being the seat of the intelligent soul, is the most noble part of the body. The soul destitute of intelligence, which is the cause of anger, love, hope, &c., was placed in the chest, and in order that the intelligent soul might not be disturbed or incommoded by the passions, the neck, which is long and bony, was interposed between them.

By the expression *soul* $\psi\upsilon\chi\eta$, the followers of HIPPOCRATES, like HERACLITUS, concur in the idea of a subtle matter, ethereal or igneous, produced by the admixture of the elements, but chiefly by the union of fire and water. The humid part of the fire and the dry part of the water by their union constitute the intelligence of the soul. It is upon the igneous element that the soul, the mind, extension, growth, motion, decrease, change, sleeping, and waking depend. This is the reason of the intelligent principle being located in the left ventricle of the heart, whence it rules over the rest of the soul.

The STOICS also lodged the soul in the heart, and assigned the most absurd and contradictory reasons for its being so placed: they imagined it to be nothing more than a vapour or exhalation from all bodies, that the igneous nature of the soul was refreshed and restored by respiration, and by contact with atmospheric air; and that the human soul was a vapour exhaled from the blood.

ARISTOTLE believed the soul to be simple, to be the form of matter, and the principle of primary movement in natural bodies, to be susceptible of vivification and animation, and to contain the principle of the vital functions. Although he maintained the immaterial nature of the soul, he was unable entirely to divest himself of the

reason and absurdity which pervade the opinions of the Hindus upon most speculative subjects. The predominance of one or more of the humours with the mental and moral qualities of the individual, stamped the type of the temperament, and in the more delicate shades of character and constitution frequently observed, the dispositions of Gods, sages, demons, birds, beasts, fishes and even trees,* were called in to assist in the coloring and completion of the picture. There were seven temperaments acknowledged, "one produced by an excess of air, another of bile, and a third of phlegm; a fourth, fifth and sixth from an excess of two of these humours; and a seventh temperament is produced by an excess of three humours, air, bile, and phlegm."

"1. When air is in excess, the person is not inclined to sleep, or to become warm. His disposition is bad and he becomes a thief; is proud and has no honour; is always singing and dancing; his hands and feet split, his hair and nails are dry, and he is always angry and boisterous. He speaks untruths, he is always grinding his teeth and biting his nails, he is always impatient, is not a firm friend, is changeable and forgets good actions. His body is slender and dry, he always walks fast, is always in motion, and his eyes are always rolling. He dreams that he is flying about the air, friends are few, and his riches of little value. Such persons as have an excess of air have the disposition of the goat, jackall, hare, camel, dog, vulture, crow, and ass."

We suspect that few of our readers were previously aware of the important and multifarious character assumed by an 'excess of air' in their constitutions, should it exist, or that it could produce so zoological a disposition as to range between the frisking propensities of 'odorate capricorn' and the patient endurance of that horrid emblem of wisdom, the ass.

2nd. A person with an excess of bile perpires much, and he has a bad smell. His skin is of a yellowish color, his flesh is soft: his nails, eyes,

notion, that like all bodies, it could only act through the agency of an intervening medium; this medium he mentions under the various denominations, used indiscriminately, of *fire, spirit, air or ether*. He regarded the brain as primarily cold in its nature, in consequence of which the heart, at that time supposed to be the source of the blood, was considered the seat of the soul.

PRAXAGORAS, who was the first to establish the difference between the arteries and veins, and who imagined the former from their constant emptiness after death to be air vessels, assumed that the air contained in them was thick and vaporous, because he also partook of the general opinion of the time, that the vital power or soul was an evaporation or exhalation from the blood.

The celebrated peripatetic STRATO of Lampsacus, who lived at Alexandria and was attached to the court of the Ptolemies, regarded the soul as the resultant of the operation of the senses, or the union of all sensation, the seat of which he supposed to be between the eyebrows.—KURT SPRENGEL: *Op. Cit. passim*.

* "Men having the disposition of *trees* always wish to remain in one place, are always eating, will not work"—not a very incorrect portraiture of many Bengalis, whose lazy and anti-locomotive propensities are essentially of the arboraceous type.

palate, tongue, lips, and the palm of his hands and soles of his feet are of a copper colour; his fortune is bad, and his hair soon becomes gray, the upper part of his head bald, and his skin wrinkled as if by age. He eats much, and dislikes warm articles of food, is soon angry and is as soon pacified, is of moderate strength and does not live long. His memory is good, he is a good man of business, and speaks accurately and to the purpose. His appearance is fine, and in company he excels in speaking. He dreams of gold and yellow flowers, fire, lightning, and falling meteors, dislikes saluting a person, and is angry at others not doing so, is never content, &c. His disposition resembles serpents, owls, cats, monkies, tigers, and bears."

The bilious temperament is, therefore, responsible for more than most modern physiologists have attributed to it, and includes in its circle many and anomalous characters from the alchemist to the orator:—

"3rd. Phlegm in excess produces a light greenish or blue colour of the body. The person's fortune is propitious, he is pleasant to look on and handsome, likes sweet things, is grateful, constant, just, and forgiving, and is not covetous, is strong and understands with difficulty, and is an implacable enemy. His eyes are white, his hair is fine, black, and waving. He is wealthy and his voice is strong and loud. He dreams of lilies, geese, and large fine tanks. The angles of his eyes are red, his color pleasing, and his members are well formed. His regard is mild, his disposition is very good, and he is charitable. He is active, honors respectable persons, and is kind to them; and knows the sciences. He retains his friend, and health remains constant; he is careful but gives much. He is of the nature of Brahma, Indra, Shiva, and Varuna; of lions, horses, elephants, cows, and bulls, and of the bird upon which Vishnu rides,"

which the learned Commentator states to be 'something between a man and a goose', by no means an inapt image of such a novel species of Caliban, as a phlegmatic Hindu, painted by one of his own sages. Our remark need not, however, be taken in the disparaging sense attached by Europeans to the Goose, since, according to Wilkins, this much injured bird is adopted as the emblem of elegance and eloquence by the Hindu poets—and who is not acquainted with the historical celebrity of the Roman geese?

The Hindus divide the life of man into three ages, viz: 1st *childhood*, subdivided into three periods, (a) the period of suckling to the 1st year; (b) when milk and rice are the food, extending to the second year, and (c) when the food is rice, extending from the 3rd to the 15th year, when phlegm is in excess: 2nd *manhood*, extending from the 16th to the 70th year, and embracing four stages, (a) *Vriddhi* or growth from 16 to 20; (b) *Jauvana* from 20 to 30; (c) *Sampúrnatá* from 30 to 40, when all is in perfection and complete development; and (d) *Háni* from 40 to 70, when all the powers of life are gradually diminishing, and bile is in excess: 3rd *Decrepitude*, from 70 until death closes the scene, the 'age that melts in unperceived decay,' and in

which the body “resembles an old house in the rainy season with many props,” when air is in excess and nervous diseases prevail:—when,

“Time hovers o’er, impatient to destroy,
And closes all the avenues of joy.
In vain their gifts the bounteous seasons pour,
The fruit autumnal and the vernal shower;
With listless eyes the dotard views the store,
He views and wonders that they please no more.
Now pall the tasteless meats and joyless wines,
And luxury with sighs her slave resigns.”

until man reaches the last stage of his strange eventful history :—and then,

“In life’s last scene what prodigies surprise?
Tears of the brave and follies of the wise.”

The male is supposed to attain maturity at 25, and the female at 16—a just and important observation which the modern Hindus have neglected and lost sight of, to the deterioration of their race by early marriages and still earlier vices. The age of the individual had its influence upon the general nature of the treatment to which he was subjected, being so far in accordance with the views entertained by the Greek physicians, and followed to a still greater extent in the modern practice of physic.

The eight subdivisions of life observed by the Hindu sages, forcibly remind us of the ‘seven ages’ of Shakspeare, which although so well known and often quoted as to have become familiar as a thrice told tale, we are tempted to repeat:

“At first, the infant,
Mewling and puking in the nurse’s arms;
And then, the whining school-boy, with his satchell,
And shining morning face, creeping like snail
Unwillingly to school: And then the lover;
Sighing like furnace, with a woeful ballad
Made to his mistress’ eye-brow: Then a soldier;
Full of strange oaths, and bearded like the pard,
Jealous in honor, sudden and quick in quarrel,
Seeking the bubble reputation
Even in the cannon’s mouth: And then, the justice:
In fair round belly, with good capon lin’d,
With eyes severe and beard of formal cut,
Full of wise saws and modern instances
And so he plays his part: The sixth age shifts
Into the lean and slipper’d pantaloons;
With spectacles on nose and pouch on side;
His youthful hose well sav’d, a world too wide
For his shrunk shank: and his big manly voice,
Turning again toward childish treble, pipes
And whistles in his sound: Last scene of all
That ends this strange eventful history,
Is second childishness, and mere oblivion,
Sans teeth, sans eyes, sans taste, sans every thing.”

Human nature is the same every where, and were proof wanting of the accuracy of observation and faithfulness of

record of the Hindus, in matters wherein they are neither trammelled by superstition nor fettered by prejudice, it may be found in their correct division of the stages of life; the modern physiology of the same matter differing but little in essentials from those above detailed, by observers so far removed from and dissimilar to each other in every sense.

The chapter on Death contains many sound and just remarks, and is characterized generally by a degree of poetic truth and accuracy worthy of a higher and a purer faith than that of the followers of Manu. Death is defined to be 'the separation of the soul from the body,' and is supposed to occur in one hundred and one ways, of which one only is natural, the remainder being accidental. What can be more correct and philosophical than the following reflections concerning it:—

"Death is always near, and when it occurs, nothing but the sins and virtuous actions accompany the soul."

A mansion infested by age and sorrow, the seat of maladies, harassed with pains, haunted with the qualities of darkness, and incapable of standing long: such a mansion of the vital soul let its occupier always cheerfully quit.*

When a person leaves his corpse, like a log or a lump of clay, on the ground, his kindred retire with averted faces; but his virtue accompanies his soul; continually, therefore, let him collect virtue, for the sake of securing an inseparable companion with which he may traverse a gloom, how hard to be traversed! For, in his passage to the next world neither his father, nor his mother, nor his wife, nor his son, nor his kinsmen, will remain in his company: his virtue alone will adhere to him. Single is each man born; single he dies; single he receives the reward of his good, and single the punishment of his evil deeds.†

All are said to die alike, and the holy to be the least afraid of dissolution as being the best prepared for the change: the body after death is likened to a house without a tenant, and is burnt, that its elements may be purified to join the mass of the same elements of which the earth is composed:—

"What then dies? not the body, for it only changes its form; and certainly not the soul; why then regret the death of relations and friends if they have passed through life with propriety! Such grief is indeed natural, for it is universal, but it is the offspring of our ignorance and of our selfishness.

As the body is continually changing in its progress through life, so death is merely one of these changes. The body is frail, but the soul is incorruptible. The body is alone destroyed, not the soul; as it only changes its position, like a person who casts off his worn out garments. Cutting instruments may wound him, and air may dry him up, but the soul remains always the same. Those who are born must die, and whoever dies must be born again; and as the elements were invisible and separated

* Manu, Cap. vi. pa. 77.

† Manu, Cap. iv. ps. 239, 240, 241, 243.

before the formation of the body, in like manner they are again separated and dispersed upon its dissolution.*

* It is pleasing to compare and contrast some of these sentiments, with similar thoughts expressed in analogous terms by many of the poets and philosophers of ancient Greece and Rome. A very few familiar examples will exhibit the direct parallelism between writers and observers, who could have had no intercommunication or knowledge of each other's works :—

HINDU :

"The wise and foolish, the great in rank, the low in condition, all die in the same way.

"Death is always near."

"Those who are born must die."

"As the body is continually changing in its progress through life, so death is but one of these changes."

"There are a hundred and one ways in which a man may die."

"Death is the separation of the soul from the body."

Innumerable other passages to the same effect might readily be collected had we the library or the leisure requisite for the task.

The sublime references to Death contained in the sacred writings we have purposely refrained from referring to, for reasons which will suggest themselves to most of our readers. In majesty, beauty, and truth they are unapproachable.

Whether the doctrines of *Metempsychosis* or the transmigration of the soul, taught and illustrated by Plato and Pythagoras, was borrowed from the Egyptian Priesthood, and originated with the latter can scarcely now be determined, yet it is curious that it is contained in the oldest of the Hindu medical records.

At the moment of death the material elements of the body separate, and the vital soul, which has an invisible body resembles the forms of the body it had inhabited, and retains the organs of sense and of action. *On separating from one it joins itself to another*, and according to the actions the person had performed in his former state of existence, so will be its future condition.*

"Pallida mors æquo pulsat pede pauperum tabernas

Regumque turres."

"Prima quæ vitam dedit hora carpsit:
Nascentes morimur, finisque ab origine pendet."

"Nam nox nulla diem, neque noctem aurora secuta est,

Quæ non audierit mistos vagitibus ægris
Ploratus, mortis comites et funeris atri."

"Crudelis ubique
Luctus, ubique pavor et plurimæ mortis imago."

"Mors et fugacem persequitur virum;
Nec pareit imbellis juventæ
Poplitibus timidoque tergo.

Ille licet ferro cautus se condat et aere,
Mors tamen inclusum protrahit inde caput."

"Omnia sub leges mors vocat atra suas."

"Sed rigidum jus est, et inevitabile mortis."

"Jam mihi deterior canis aspergitur ætas,

Jamque meos vultus ruga senilis arat;

Jam vigor et quasso languent in corpore vires,

Nec juveni lusus qui placuere juvant,

Nec me si subito videas agnoscere possis,

Ætatis facta est tanta ruinæ meæ.

Confiteor facere hos annos.".....

"Mille modis morimur mortales, nascimur uno;

Una vita est, moriendi mille figuræ."

"Tum vita per auras,
Concessit mæsta, ad manes corpusque reliquit."

Some of these expressions may almost be compared in beauty, simplicity, and truthfulness, to the affecting images by which the Jews were wont to characterize death, as a journey or departure; a sleep and rest when the toils of life are over; or a gathering of the deceased to his fathers, or to his people!

The third book is occupied with the therapeutical department, which is discussed under the appropriate heads of Hygeology, Materia Medica, Pharmacy, and Surgery, the practice of Physic having a book to itself, probably from its great extent and the difficulty of bringing it under the head of Therapeutics alone.

Diseases are declared to one their origin: 1stly, to sins committed in a former state of existence, to which—as among the Egyptians—the Hindu physicians knowingly assigned their incurable cases, as it placed them beyond the opprobrium of medicine, and absolved practitioners from the reflections that might have been attached to the imperfections of their art or to their own want of skill: 2ndly, to derangements of the humours, the only diseases that yielded to remedial measures; and 3rdly, to a combination of the two, which also came under the incurable category, and gave an additional means of escape to the unwary practitioner who might have, in his diagnosis, pronounced a *humoral* judgment upon an affection which would not get well in spite of his efforts, and in which, when medicine had done its best (or worst) he called in the aid of prayer, penance, and sacrifice to place it beyond the reach of his drugs and simples. The ingenuity and craft of such a system appear in some measure to have been adopted by certain manipulators of our own times, with the modern refinement of attributing failure, to a want of '*rapport*' between the magnetizer and his subject, or to the adverse influence of perverse currents of air, slight febrile disturbances, unusual noises, and similarly profound agents in the disturbance of the rebellious or intractable system.

The Hygeology, or Hygeine as it is more commonly called, of the Hindus was of a very detailed description, and descended to minutiae and trifles unthought of in the systems of other nations, but not always of minor and secondary importance in a tropical country, where the causes of disease are so numerous and active in their operation, as to demand the aid of religion to assist in saving mankind from the ravages that would be caused by neglect or inattention to them. Without a regular system of medical police the Hindus paid

great and deserved attention to the prevention of diseases, were acute observers of the changes of season and climate, and well aware of the influence of soil and vegetation in the maintenance or deterioration of health. Their meteorology was necessarily of the most rude and imperfect nature, yet much in advance of anything that has reached us from cotemporaneous nations.

The following remarks from the pen of the Commentator will be read with interest concerning the seasons and people of Bengal :—

“ There are three prevailing seasons in Bengal, the hot, cold, and rainy seasons. From the end of February, and during March and a part of April may be considered as spring months, and are the most agreeable of any of the year. Towards the end of March, and during the months of April, May, and a part of June the weather is very hot; and in the northern and more inland provinces a violent hot wind blows from the west, loaded with almost imperceptible particles of sand. In this season the weather is so oppressive as to confine the inhabitants to their houses during the great heat of the day. Vegetation is destroyed and these provinces are reduced to a burning tract of sand, while the air of the neighbouring mountains remains cool and pleasant, during these hot months.

In the Upper Provinces the rains begin in April and May; but in the plains they do not commence till the beginning of June, and continue to fall till the end of July. The rain disperses the accumulated heat, which would otherwise be insupportable. During the months of August and Sept. the rain falls less frequently and copiously, and the long day and high altitude of the sun, with an atmosphere loaded with moisture, render the weather excessively oppressive and sultry; particularly when the air is calm, which is of frequent occurrence, as the Monsoon changes at this time. The cold season commences in the month of October, when dews are heavy; the cold increases, and during the months of November, December, and January, it is often intense in Bengal and Behar. In these provinces the cold has generally a damp disagreeable feel, whereas, in the northern and western provinces, snow and ice are common on the Mountains, and the air is dry and bracing.

From such an extensive country, and variety of soil and climate, the vegetable and animal productions are of the most varied description in the different latitudes, heights, and exposures; and man himself affords great varieties in his physical and mental powers in the different situations and climates in which he resides. In the Northern Provinces of Hindustan, the men are all strong and active, and are distinguished by their courage and mental qualities; as we advance to the more sultry and moist climate of Bengal, the inhabitants become of lower stature, possess greater agility, and are capable of enduring great fatigue, have little courage or mental aptitude, but great cunning and retentiveness. They are generally of a fair olive colour, handsome in their youth, and in after life in proportion to their rank, and healthy and guarded occupation; but become of a dark olive colour and plain exterior, in proportion as they inhabit low and damp houses, live on unhealthy food, and are much exposed to labour, and to the inclemency of the weather. In general the head and face of the Hindu are small and oval, the nose and lips prominent and well formed, the eyes black, and the

eyebrows regular and full.* The females are distinguished for the gracefulness of their forms, the softness of their skins, their long and black hair, dark eyes, and delicate persons. These peculiarities are marked in youth, but rapidly fade. The fairness of the skin also differs—depending on that of the parents, and on the occupation and exposure of the individual to the sun, &c.†

The personal duties, including all operations connected with the toilet and dress, as well as the subject of dietetics generally appear to have been carefully inculcated and enjoined, in many respects in a clear and sensible manner, admirably adapted to the moral and social circumstances of the people. Habits of cleanliness and the frequent use of baths and anointing were among the religious duties of all respectable individuals, and correctly deemed essential for the preservation of health.

In the olden times neither wine nor animal food of proper quality and in moderate quantity were interdicted, which are regarded, and we think justly, as ‘one reason of the superiority of the ancient Brahmans over their more degenerate descendants, who are small in stature, and incapable of those mental and corporeal exertions which raise a people in the rank of nations.’ As among the Jews and Egyptians the flesh of certain animals of unclean habits, or which were known to have an injurious effect upon the frame were interdicted, but during the three first ages, even the flesh of the cow and of the buffaloe were ranked among the wholesome and invigorating articles of diet, and were freely partaken of, with many varieties of the finny and feathery tribes, and a goodly allowance of condiments, fruits, and vegetables. All nature has been bountiful to the inhabitants of Hindustan—man himself in these favored regions has been his own chief and greatest enemy. The whole of this part of the commentary is replete with interest to every reader, and to the European medical practitioner will suggest many valuable hints for the prevention and cure of disease, and attention to the habits suited to the climate and seasons, which our countrymen are, to their cost, too much in the habit of treating with neglect and derision.—How many of the fevers, liver complaints, and other scourges of a tropical region may be traced to the persistence in habits

* “The intelligence of the Bengalis is much more marked in the higher classes than among the lower. In the former, the brisk and intelligent boy, that receives instruction readily, is fickle and restless; and from the short period he attends school, from the enervating nature of the climate, and the vitiating influence of Hindu society, is too often transformed into the stupid and sensual man.”

† Wise, Op. Cit. pp. 91-92.

and indulgences scarcely practised with impunity even in a cold climate, and which are heavily laden with disease and destruction on this side of the equator. Were it not foreign to our present purpose, we could write a longer lecture on this topic than most of our readers would be willing to read or profit by : should opportunity offer and the very limited leisure at our disposal admit of it, we may take a future occasion of directing attention to the modification of European habits most required in India, and best adapted to enable the exile to return to his hearth and home, with health and strength to enjoy their peculiar blessings and benefits.

The MATERIA MEDICA of the Hindus is an extended and complex branch of their Medicine, embracing the collection, preparation, uses, doses, combinations, and effects of an immense variety of agents chiefly derived from the vegetable kingdom, including also a small number of inorganic and animal substances. Their pharmacy appears to have comprised most of the forms in which medicines are compounded according to modern pharmacopeias, but their processes were uncertain, variable, and in many important particulars incorrect. The proper time for gathering vegetable medicines was strictly attended to, and most pharmaceutical processes were preluded with particular forms of prayers, to drive away devils or secure divine aid to increase the efficacy of their remedies.—Polypharmacy was their great and besetting sin, and although simples were known and studied by them, they do not appear to have placed so much faith in them, as in their heterogeneous and in the majority of instances inert and nauseating mixtures and potions. They used preparations of mercury, gold, silver, zinc, antimony, iron and arsenic, with a degree of boldness that would have delighted the soul of Philippus Theophrastus Bombastus Paracelsus, and have fairly distanced the ‘*currus triumphalis antimonii*’ of Basil Valentine. As their measure of time commenced with fifteen winks of the eye, so their apothecaries’ weight began with ‘four of the particles of dust which are seen floating in the sun’s rays as it enters a dark room.’!

They were Allopathists, and therefore anti-homœopathic in their practice, since they declare that ‘medicines given in too small doses will be like throwing a little water upon a large fire that rather increases than diminishes it!’ The doses of medicines were carefully and properly regulated by the age, sex, and temperament of the patient, as well as the stage of the disease ; and their administration of remedies was guided by precise and minute rules often bordering on the childish and

ridiculous : for example, one kind was to be taken *with* each morsel of food, another sort *after* each morsel of food, and in all cases the patient was prohibited from making faces when he takes a medicine, as this is like Brahma and Shiva, and it is sinful so to act.'

The Charaka directs the exhibition of simple medicines in the form of decoction, and arranges them under forty-five distinct heads, beginning with *Jivāñya* or that form which gives longevity, and concluding with *Badanāsthāpana*, those which remove pains produced by external causes, as injuries, &c.

Susruta divides them into two classes, the evacuant, of bad humours from the body, and those which diminish the exalted action of the humours and restore them to the healthy state.

Other authors arrange them according to their supposed virtues in curing air, bile, or phlegm, or according to their action on certain organs. Dr. Wise has given a list of the chief simples so arranged, with their Sanskrit and Latin names. The actions of medicines are classed under the heads of *diaphoretics*, *emetics*, *purgatives*, *salines*, *stimulants*, *emmenagogues*, *diuretics*, *parturifacients*, *sialogogues* and *alteratives* which are pervaded with all the errors of their humoral pathology, but contain indigenous remedies that may be found worthy of examination by European practitioners, a subject which has not yet been well or properly investigated. The department of special pharmacology has not been entered upon, probably from its complication and extent, nor would it have admitted of analysis in the limits at our disposal.

The Hindus had a notion that every disease has its appropriate remedy if we could only discover it, hence probably the immense number of inert and dangerous substances introduced into their *Materia Medica*.

SURGERY, although more simple, obvious, and early in its adoption by most nations than Medicine, does not appear to have been cultivated to the same extent by the Hindus, if we are to judge from the limited space devoted to its consideration in the Commentary, and the comparatively small number of capital operations performed, when we reflect upon the zeal and industry with which the all essential pursuit of anatomy and dissection was prosecuted. Bold and delicate operations were, however, performed, such as cutting for stone, extraction of the dead fœtus, &c. 'which distinguished their ancient surgeons, and form such a remarkable contrast to the present

ignorant and timorous surgeons of Bengal.' As in modern surgery, inflammation and its varieties, with their effects and consequences comprised a great portion of the surgical practice of the Hindus, and although their erroneous humoral pathology rendered their doctrines and theories valueless, their remedial measures were sometimes of a simple, sensible, and successful nature.

The form of their surgical instruments has not been handed down in delineations, but has been supplied in a series of ingenious diagrams by Dr. Wise. Amputations and operations upon vessels are not mentioned among the eight kinds of manual means adopted. Bandages were commonly and apparently appropriately applied; venesection was resorted to as a depleting agent in fitting situations and to a judicious extent: scarification, cupping with a smooth cut horn, and leeching were known and practised; while styptics and cauteries, both potential and actual, were enjoined in many cases for arresting hæmorrhages, removing internal diseases, suppressing discharges and similar purposes. Cold and ice were used to stop bleeding. The nature and treatment of burns and scalds are briefly indicated, and the directions for performing surgical operations minutely detailed. Sacrifices were to be offered up, propitious times selected, the entrance of devils into the wound prevented by burning sweet-scented substances in the room, appropriate forms of prayer repeated, the patient and the operator to be placed in particular positions, the knife to be held in a peculiar manner, and the subsequent treatment of the patient to be carefully attended to. Wounds, their varieties and treatment, together with the restoration of damaged ears and noses, and the management of fractures and dislocations complete the surgical section of the commentary. Although it contains nothing very profound or striking, it is on the whole creditable to the dexterity, skill, and anatomical knowledge and boldness of the early Hindu Surgeons, affords evidence of careful observation, is less beset with the superstitious influences of their faith than other departments of their medicine, and is undoubtedly much in advance of the state of information upon the subject which prevailed in other countries for several centuries subsequent to the production of the older Shastras. The gross ignorance and contemptible cowardice of the present indigenous race of Hindu Surgeons stand out in strange relief to the intellectual superiority of their more gifted and manly-minded predecessors—whose mantle appears, however, to have descended upon the shoulders of some of the Sub-assistant Surgeons educated in

the Medical College of Bengal, as we shall take a future, and if possible, an early opportunity of pointing out.

The PRACTICE of PHYSIC occupies by far the largest book of the Commentary, and is treated with a degree of minuteness and care proportioned to its extent and interest.

The ÆTIOLOGY and NOSOLOGY of the Hindus, from being inseparably connected with their religious belief and dependent upon their erroneous doctrines regarding the elements, were crude, imperfect, and not founded upon any firm or philosophical basis. Prominent symptoms, acute and chronic, primitive and consecutive, external and internal, local and general, hereditary and acquired, contagious and non-contagious, derangement of one or more elements, and similar principles were the chief characteristics and foundations of their arrangements—the peculiarities of the symptoms and their combinations, influenced and modified by the structure and functions of organs, entered not into their calculations. Thirst, appetite, sleep, and death were regarded as *natural diseases* which give pain to the soul; and the ‘abuse of Deities or Brahmans, the contempt of spiritual instructions, with other similarly heinous offences were boldly declared to be the existing cause of loathsome and incurable disorders.’ The latter, very properly, were deemed to require for their alleviation serious and prolonged penance, mysterious performances, and liberality to those banes of Hindu society and improvement yecept the “Sacred Brahmans.”

A kind of numerical method is found in some of the older writings, and three appears to be the critical number: thus *Charaka* states that there are three general causes of diseases; three sorts of medicine—one that cleanses internally, another that purifies externally, and a third, to embrace surgical means; three objects of enquiry in this world—the first and chief being the means of preserving health, the second, the means of acquiring wealth, and the last the procuration of happiness in the next world—an expanded interpretation of the familiar phrase, ‘to be healthy, wealthy, and wise, :—with three means of preserving life, ‘proper food, sleep, and the proper government of the senses and passions.’ Sin is the ‘fons et origo’ of a form of disease which ‘is to be suspected, when a disease is not cured by the means pointed out by the Shastras’—which is to be removed by good actions, prayers, penances, &c. and for which MANU prescribes a course of Flying-Dutchman or Wandering-Jew treatment. “If a disease is incurable let the patient advance in a straight path, towards the invisible

North-eastern point, feeding on air and water, till his mortal frame totally decay, and his soul becomes linked with the Supreme Being.”—(MANU, Cap. 6, § 31.)

Diagnosis among the Hindus was founded upon the common sense method of personal examination, and the nature of the disease ascertained by the appearance of the organs of sense, by the feeling, temperature, &c. of the body, and by ascertaining the age, sex, temperament, country, and history of the individual and his disorder. The senses were all employed in the task, and *hearing* was the method resorted to of ‘distinguishing the state of the lungs, by the peculiar noise of the breathing’—an early adoption of auscultation as a means of diagnosis. The pulse is stated to have been little regarded by Charaka and Susruta, but to have risen subsequently into great repute in the recognition and treatment of disease. This modern knowledge exhibits every evidence of being borrowed, probably from the Chinese, and most likely was introduced more for the purpose of *intra-purdah* examinations, than from any well founded conviction of its real value.

The Hindus were partial to prognostics, and recorded correctly many minute and apparently unimportant particulars connected with various diseases. This they mixed up with more than the usual amount of superstition, placing unlimited faith in all sorts of extraordinary omens, down even to the walking of a goose and the scratching of the patient’s back!

There was a good deal of what is now popularly known under the slang designation of ‘artful dodging,’ in these omens—the practitioners taking care to protect themselves from being disturbed at noon day or at midnight, when at their toilet or their meals, when asleep or when otherwise unwilling to be interrupted, by declaring them all to be ‘unfavorable omens’ as to the event of the disease they were called upon to treat.

The diseases of the humors, and fevers with their origin, varieties, progress, termination, and treatment are next referred to, and exhibit the usual amount of sense and nonsense, accuracy of description of symptoms and incorrectness of causes to which they are assigned, with many serious errors of practice in their management. Small pox and measles appear to have been known to the Hindus long before they travelled into Europe and were described by the Arabian physicians of the sixth century. There is no doubt that the former malady was also known to the Chinese; its history being among the most curious of the records of scourges that have afflicted mankind, and for which the Western was certainly indebted to the

Eastern Hemisphere, as it has been more recently for another pestilence of equally fatal and formidable character—the Asiatic Cholera.

Rheumatism, swellings, obesity, emaciation, burning sensations of the body and feet, nervous diseases, in which are included all affections of the tendinous structures, the various forms of leprosy, urticaria, epilepsy, boils, pustules, and hæmorrhages were all known to and described by the Hindu physicians.

The diseases of the mind were reckoned to be swooning, epilepsy, six varieties of insanity, and devil-madness,—the last a curious compound of fancy and absurdity.

Eleven varieties of headache, twenty diseases of the ear, thirty-one of the nose, seventy-six of the eye, sixty-five of the mouth and its appendages, and a large number of disorders of the throat, are briefly referred to in Dr. Wise's work as contained in the Hindu Medical Shastras.

Among diseases of the chest, consumption, usually supposed to be infrequent in warm climates, is stated to be both frequent and fatal, and to have had a fabulous origin, to wit, that the 'moon married seven sisters, but attaching himself to one, the others complained to their father, who punished the moon, by declaring that he should be afflicted with consumption.'!!

Many other morbid conditions of particular systems and regions of the body will be found to have been common in various parts of Hindustan, and testify the minuteness and extent of the professional knowledge of its physicians employed in their investigation and treatment: they do not, however, admit of analysis, and for the most part possess little or no interest for the general reader.

The low standard of moral principle pervading Hindu society, the facility of commission and difficulty of detection of crimes unattended with marks of personal violence, together with the unrelenting atrocity and cold-blooded calculation that accompanied the feelings of interest, enmity and revenge, rendered POISONING an early and frequent means of murder—hence the department of Toxicology, including poisons and their antidotes, attracted a large amount of attention.

Like most other branches, poisoning commenced in mystery and fable, but chiefly obtained notice because the "enemies of the Rajah, bad women, and ungrateful servants, sometimes mix poisons with food. On this account the cook should be of a good family, virtuous, faithful, and not covetous, not subject to anger, pride, or laziness. He should also be cleanly and skilful in his business." The doctor's duty began where

the cook's ended—he was to be well acquainted with the qualities of poisons, to examine the food intended for the Rajah, and if it exhibited any signs of suspicion, to give it to certain animals, the effects upon which were regarded as the tests of its innocence or injurious nature. The operation and effects of poisons must have been very imperfectly understood, and the nature of the treatment indicated was calculated to secure a fatal result in most cases of active vegetable or mineral poisons.

The animal poisons include snake bites, certain animals that have poison in their teeth and nails, such as dogs, cats, snub-nosed aligators, a kind of fish called *paka mucha*, a shell-fish (*sambuka*), and lizards: others that have noxious excretions; a kind of flea, a species of leech, and certain fishes that have poisonous bites. The treatment of snake bites was judicious, sensible, and in most respects the same as would be adopted by a prompt European practitioner. Hydrophobia and the poison of various insects were noticed, as well as a long catalogue of deleterious agents from the vegetable kingdom.

The commentary closes with a brief abstract of the Obstetric Medicine and Infantile Therapeutics of the Hindus, neither of which were in a particularly advanced state: they do not admit of analysis in the pages of a non-professional review.

We have now redeemed our promise of presenting a cursory outline of the many matters of interest connected with the medicine of the Hindus, which are contained in the work placed at the head of the list prefixed to this article:—but before concluding we have few words to say respecting the literary merits of Dr. Wise's performance.

Although fully convinced of the laborious industry and patient investigation of the learned author, we are by no means satisfied that the method of translation adopted was the best calculated to secure accuracy. We have been informed upon authority of which we cannot doubt the correctness, that the native gentlemen named in the preface turned the Sanskrit into a vernacular medium, from which it was subsequently 'done into English' by Dr. Wise, who is not, we are told a Sanskrit scholar. and therefore, himself incapable of detecting any errors of interpretation, should such have occurred, a result by no means improbable. The identification of medicines and diseases is also liable to some degree of doubt for a similar reason, as well as because we know that the majority of scientific terms in Sanskrit have no synonymes in Bengali or Hindui. It was originally our intention to have procured authentic copies of

the Sanskrit medical authorities referred to, and to have had portions translated by competent Sanskrit scholars, who kindly offered us their services upon the occasion, for the purpose of testing the general accuracy of the commentary. Various circumstances have combined to prevent the realization of our design, and we must leave the task to others, who with a larger amount of leisure, combine a greater degree of fitness to execute it with the care, attention, and accuracy requisite.

Another defect of the commentary which has struck us forcibly as somewhat diminishing its value, has been the difficulty of ascertaining in all places whether the remarks referred to the older or more recent medical writers; for we hold the modern medicine of the Hindus to be of a very low order, and are of opinion that any features of excellence it may possess, were derived from their Mahomedan conquerors, whose works embodied almost all that was valuable in the medicine of the Greeks, in addition to their own discoveries in chemistry and other departments. An occasional foot note would readily have remedied this imperfection.

The commentary also abounds in typographical errors, for which the author must have been indebted to the kind but careless or incompetent friend, who brought the pages through the press during his absence from Calcutta.

In spite of all these imperfections, which we trust will disappear in a second and enlarged edition, we hold the Commentary to be a valuable addition to the history of medicine, to contain much that ought to be known to all who study and practice the treatment of tropical diseases, and to be creditable, in every sense, to the learning and ability of its accomplished author.

